REPORT RESUMES

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ESSEX COUNTY COLLEGE COST FACT-FINDING COMMITTEE. FINAL REPORT.

BY- DAVIS, C. MALCOLM AND OTHERS

ESSEX COUNTY BOARD OF FREEHOLDERS, NEWARK, N.J.

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THE COST OF DEVELOPING A COMMUNITY COLLEGE IN ESSEX COUNTY, NEW JERSEY, INCLUDING ACQUISITION OF SITE AND CONSTRUCTION, IS APPROXIMATELY $5,000 PER FULL-TIME DAY STUDENT. TENTATIVE ENROLLMENT PROJECTIONS INDICATE 700 STUDENTS WHEN THE SCHOOL OPENS, SEPTEMBER 1967, AND A LEVELING OFF AT 4,000 BY 1973. THE EVENING DIVISION PART-TIME ENROLLMENT MAY DOUBLE THE DAY-TIME FIGURES. TO OPERATE THE COLLEGE WILL COST $1,300 PER YEAR PER FULL-TIME STUDENT ENROLLED. THIS REPORT ALSO CONTAINS INFORMATION ON ALLOCATION OF CLASSROOM AND LABORATORY SPACE, BUILDING PHASES, A SITE ANALYSIS, RESULTS OF A PARENTS' QUESTIONNAIRE, AND COMMUTING SURVEY. SIXTY-FOUR PERCENT OF THE POTENTIAL STUDENTS INDICATE THAT THEY WILL ENTER THE TRANSFER PROGRAM. IT IS RECOMMENDED THAT TUITION NOT EXCEED $300 PER YEAR. (HS)

ED010953

FINAL REPORT
ESSEX COUNTY COLLEGE
COST FACT-FINDING COMMITTEE

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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ESSEX COUNTY BOARD OF CHOSEN FREEHOLDERS
MAY 24, 1966

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INTERIM REPORT OF THE COUNTY COLLEGE COST FACT-FINDING COMMITTEE OF THE ESSEX COUNTY BOARD OF FREEHOLDERS

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APRIL 1, 1966

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JC 660 135

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SUMMARY OF FINDINGS

(See also Principal Findings & Recommendations, page 6)

ENROLLMENT

Firm estimates of enrollment must await the results of a Questionnaire for Parents now in process. Tentative estimates anticipate an initial enrollment of 700 full-time day students for a school opening September, 1967. Provision should be made for an increase up to 2000 students by September, 1969, to 3000 by September, 1971, and to a leveling off at 4000 by 1973. The Evening Division part-time enrollment may be double the day-time enrollment.

FACILITIES

Temporary.

Temporary facilities for the period 1967-1969 would have to be provided. The least expensive solution is to adapt structures already existing on a permanent site for this purpose, adding to them, if necessary. If this is not possible, quarters would have to be leased at a separate location. Up to $1,000,000 may be required to lease and renovate 100,000 sq. ft. (a minimum to accommodate 1000 students) for two years of operation in a manner acceptable to State authorities.

Permanent.

A permanent facility to house the above enrollment should be developed at a permanent site in two phases of construction:

Phase I. Primarily classroom and laboratory buildings, and a library, to accommodate a maximum enrollment of 3000 students.

The permanent site should be acquired not later than November 1, 1966 for possession not later than May 1, 1967.

Phase I construction should start not later than February 1, 1968 in order to be ready for occupancy. September 1, 1969.

The cost of acquiring and preparing a permanent site for construction is estimated to be $1,500,000.

The total cost of Phase I development, including site acquisition and construction, would be approximately $12,000,000, apportioned as follows: Federal government, $500,000; State, $5,750,000; County, $5,750,000.

Phase II. Gymnasium/Health Center, Student Center/Cafeteria, Administration/Guidance Office Building, Fine and Performing Arts Center/Auditorium, additional classroom, laboratory, and library facilities. The purpose of Phase II is to round out the Phase I facility and to raise the maximum enrollment to 4000 students.

Phase II construction should start no later than February 1, 1971, to be ready for occupancy September 1, 1972.

The cost of Phase II would be approximately $8,500,000, apportioned as follows: Federal government, $500,000; State, $4,000,000; County, $4,000,000.

Complete Facility. The total cost of the completed college, erected in Phases I and II, would be $20,500,000, apportioned as follows: Federal government, $1,000,000; State, $9,750,000; County, $9,750,000.

The costs given above for both Phases will rise about 3% per year if construction is postponed beyond the dates given. Also, costs will be about $\frac{1}{2}$% greater for each 1% of technological program students enrolled over 50% of the total student body (day-time enrollment).

FINANCING DEVELOPMENT

It is suggested that the County finance its share of development costs by two issues of "County College Bonds", one of $6,000,000 for Phase I development and one of $4,000,000 for Phase II development. The increased cost to the taxpayer of such a program would be equivalent to about $1.60 per year, from 1967 to 1971, on a property valued for tax purposes (on a 100% basis) at $20,000. From 1971, for the next twenty years, the tax increase on the same property would amount to about $2.00 per year.

The total amount, to be borrowed, $10,000,000 is less than 40% of the legal limit for Essex County on the amount of County College bonds that may be issued (Limit = $\frac{1}{2}$ of 1% of current assessed valuation = $\frac{1}{2}$ of 1% of 5.3 billions = $26,500,000).

OPERATION COSTS AND THEIR FINANCING

The cost of operating an Essex County College would be about $1200 to $1300 per year per equivalent full-time student. The County and student would share that portion of the cost of operation not borne by the State. Currently the State's contribution is limited to $200 per year per student, but a bill already passed by the Assembly (although not acted on by the Senate, at this writing) raises this limitation to $600. If the County's obligation were $400 per year per student, and the enrollments were those given earlier, the cost in increased taxes to the $20,000 property owner for operation would begin at about $1.70 per year in 1967, rise to about $4.00 per year by 1971 and level off at $8.00 per year by 1973 when the school's capacity of 4000 day-time enrollment was reached. If the County's share were less than $400, then the tax increase for operation would be commensurately below these amounts. For each 1000 part-time Evening Division students, the above tax increases would be exceeded by about $.80 per year.

TOTAL COST TO THE TAXPAYER FOR BOTH DEVELOPMENT AND OPERATION

Again, in terms of a tax increase to the $20,000 property owner, the total cost of the 4000-student facility would begin in 1967 at about $3.30 per year, rise to about $6.00 per year by 1971, and level off at $10.00 per year by 1973. It would remain at that level for about twenty years, after which only the cost of operation would have to be met.

SITE

The location most favored for the Essex County College is in the municipality of West Orange near the East-West Freeway (new Route No. 280.) Several possible sites of varying degrees of suitability are in this area.

It would be desirable to acquire as much as 50 acres. The cost of land in this location is estimated to vary from $20,000 to $35,000 an acre, depending on the purpose for which it is zoned. In this report the cost of acquiring and preparing a suitable site is estimated to be $1,500,000.

DEVELOPMENT TIMETABLE

If a college like the one described above is to be established to open September, 1967, the following critical deadlines must be met:

April 15, 1966 - Publication by the Board of Freeholders of its resolution of intention to establish a Community College.

May 1, 1966 - Public hearing on the resolution.

August 1, 1966 - Appointment of Trustees.

September 1, 1966 - Appointment of the President and start of his duties.

January 1, 1967 - Possession of the temporary site, or of the permanent site if it is also to serve as the temporary site.

May 1, 1967 - Possession of the permanent site (if other than the temporary site).

INTERIM REPORT OF THE COUNTY COLLEGE COST FACT-FINDING COMMITTEE OF THE ESSEX COUNTY BOARD OF FREEHOLDERS.

I. INTRODUCTION

The Cost Fact-Finding Committee For The Essex County Community College was established August 26, 1965, by resolution of the Board of Chosen Freeholders of Essex County. It was directed to determine

- The probable location and cost of a Community College site.
- The cost of construction for building on such a site.
- The type, size, and purpose of the institution (whether emphasis should be placed on Liberal Arts or Vocational/Technical Training, or both.)
- The State's contribution toward such cost.
- The need for additional legislation with recommendations for such, if necessary.
- Those matters necessary to a full and adequate determination of the financial impact on the County of Essex of establishing a Community College.

It has been possible to treat all of these subjects in varying amounts of detail in this Interim Report. The cost of a site, for example, is difficult to estimate prior to making final decisions relative to the size and architectural design of the facility required, and pending negotiations for site acquisition. These decisions are discussed in Section III B., CHOICE OF A SITE, under DETAILED ANALYSIS OF FINDINGS, and elsewhere in this report. The approximate type, size, and purpose of a proposed institution and its probable cost are given herein, but will be stated more conclusively in the Committee's next report, as will the recommendations, if any, for additional legislation. It may also be desirable to expand later the material on financing, should the Freeholders wish more specific guidance in this regard.

REASON FOR AN INTERIM REPORT

This interim report of the Committee represents a preliminary determination of the items listed above. The committee has distributed a Questionnaire to Parents and the results of it will provide data on which conclusive findings can be based. Early returns indicate that a large majority of parents favor the establishment of a Community College. Meanwhile this report is issued at this time in order to place in the hands of the Freeholders findings which, though subject to later modification, will enable them to reach or prepare now for critical decisions relative to the feasibility of establishing a County College. It is desirable that these decisions not be postponed. If the college is to be ready to accept students by September, 1967 (the publicly-announced target date), the necessary organizational steps, many of which are specified by law, require that the enabling resolution be passed not later than April 15 of this year (See Figure 6, Section III C.). Moreover, it is the responsibility of this Committee to point out that, should the ultimate decision be to develop the college, the price of postponement in a period of rising costs would be very substantial, probably representing an increase of 3% per year in the County's share of the cost of construction.

Still another reason for issuing this interim report now is to permit time for a program of public information to be carried out prior to the public hearing. The hearing is required by law, following publication of the Freeholders' resolution that a college be established. Final passage of the resolution can occur only after the public hearing.

INTERIM COST FINDINGS

In order to estimate closely the cost of a County College, it is necessary to have reliable projections of enrollment, as well as some concept of the programs that should be offered. Programs differ markedly in their requirements for space, cost of equipment that must be supplied, and the cost of operating such equipment. The Committee is obtaining the necessary enrollment and program data by means of a Questionnaire to Parents which is discussed in detail later in this report. Pending receipt and analysis of all of the Questionnaires, the cost data are presented, in the form of tables and graphs, for an institution having what the Committee currently regards as the likely apportionment of enrollment to programs, and the probable rate of growth. In the next report, using the questionnaire forecast of enrollments, it will be possible to fix more narrowly the cost levels that must be anticipated for the kind of institution Essex County requires. It also will be possible to scale costs of construction upward or downward depending upon the programs that the questionnaire reveals will be most in demand.

THE REPORT ON A SITE

Several possible sites have been identified. They are reported on under DETAILED ANALYSIS OF FINDINGS - CHOICE OF A SITE. The characteristics of an ideal site are discussed and a favored location, i.e., one most nearly matching these characteristics, is named. All sites investigated have been ranked according to preference, the ranking, in most cases, having been made without benefit of on-the-spot intensive examination of the properties, or of personal interviews with the owners. In no respect has the Committee entered into negotiations for acquisition. Also, in most cases, the availability, and the price of the property if available, have not been ascertained. In view of the fact that adequate locations for a County College are extremely scarce in Essex County and growing scarcer, the Committee has included among its recommendations the immediate appointment of a Site Selection Committee of the Freeholders which would be empowered to take definitive action on acquisition of a site. Such action, of course, would be predicated upon the decision of the Freeholders to move forward in the establishment of a college.

DATA GATHERING TECHNIQUE

The methods used by the Committee to obtain the data for its findings have included interviews with community college educators, within and outside the state, visits to existing colleges, and correspondence with college personnel and specialists in community college work inside and outside of government. A complete listing of these sources with dates contacted will be found in Appendix E.

ORAL BRIEFING

The Committee recommends that, after the Freeholders have had an opportunity to review the findings reported herein, a meeting be arranged between both bodies so that amplifications and clarifications may be made, wherever required.

PUBLIC SENTIMENT

In the course of its work the Committee has become aware of a strong sentiment existing throughout the County for a Community College. In some quarters, however, there seems to be a misunderstanding as to the purpose of such a College. This purpose, in the mind of educators, is not, as some would have it, solely to provide education to "the underprivileged". It is true that the cost of tuition at a County College is expected to be quite reasonable. But among the many other reasons for sending a son or daughter to a Community College are:

1) unique course offerings not obtainable at senior institutions

2) the two-year career programs for the student who wants to move as quickly as possible into the business world

3) the desire of many parents (particularly of girls) to have their children remain at home during the college years

4) the demand of local employers for County College graduates

5) the opportunity for a student to "find himself" before committing himself to a specialized curriculum at a senior institution.

The County College also offers wide services to adults, privileged or underprivileged.

II. PRINCIPAL FINDINGS AND RECOMMENDATIONS

A. FINDINGS

1. The current cost of developing a Community College in the metropolitan area, including acquisition of site and construction, is approximately $5,000 per full-time day student enrolled.

2. To build a Community College in Essex County to accommodate 4,000 full-time day students (and twice that number of part-time evening students) would cost in the neighborhood of $20,500,000, about $1,000,000 of which may be supplied by Federal funds and the balance by the State and County, share and share alike.

3. To operate a Community College in Essex County will cost $1200 to $1300 per year per equivalent full-time student enrolled. This cost would be shared by State, County, and student. It is expected that the current $200 limitation on the State's contribution per student per year will be increased by legislation being considered in the current session of the legislature.

   On Monday, February 14, 1966, the State Assembly voted 58-0 for a bill introduced by Norman Tanzman (D-Middlesex) which would raise the limitation on the State's contribution for operating costs to $600. The bill now goes to the Senate "where fast passage is predicted."

4. The equivalent cost in increased taxes of a 4,000 day-student college to the Essex County homeowner whose property is valued at $20,000 would begin at about $3.30 in 1967; rise to about $6.00 per year by 1971; and level off at $10.00 per year by 1973, remaining at this level for twenty years until all County College bonds had been retired.

B. RECOMMENDATIONS

Contingent upon acceptance of this report, it is recommended that the Board of Freeholders take the following actions:

PRIMARY RECOMMENDATIONS

1. As soon as feasible, following acceptance of the Final Cost Report of this Committee (due in April), reach a decision whether to proceed with the establishment of a County College. This decision should be based upon the findings of the two reports of this Committee; The Haney Committee Report of June, 1964; the State Report of February, 1965; the tentative financing plans prepared as called for in Recommendation No. 3 below; and whatever other pertinent data the Board of Freeholders wishes to take into account.

2. If the decision reached is to proceed with the establishment of a College,

    a) Frame and publish a resolution to that effect, as called for by law.

    b) Schedule a public hearing on the resolution for a date not later than May 1, 1966.

    c) Appoint a Trustee Selection Committee no later than May 1, 1966 and instruct it to be ready to announce its selections on or before July 31, 1966.

3. Prepare without delay tentative plans for financing the two-phase program outlined in this report for the development of an Essex County Community College accommodating 4,000 full-time day students by 1972. The next Fact-Finding Committee report will make final recommendations as to the size and type of school required based upon enrollment forecasts that are being secured by questionnaire.

4. Designate a Site Acquisition Committee with authority to obtain authentic and detailed data relative to the acquisition of a site of as much as 50 acres in extent in the favored location.

SECONDARY RECOMMENDATIONS

5. Initiate as soon as possible a public relations effort to inform the public on the meaning to the average family of a Community College in Essex County and on the status of the program to determine whether one should be established.

   This could include dissemination of an abstract of this report to all voters in the County and filing of copies of the complete report in all the public libraries of the County. Volunteers might be recruited to present short informative talks on the subject of a County College to service clubs, civic and school groups.

6. File a progress report with the State Department of Education and with the Commission on Higher Education of the Middle States Association of Colleges and Secondary Schools, in order to show diligence and to prepare for dealing with these agencies in requests for aid, accreditation, etc., in the event a County College is established.

III. DETAILED ANALYSIS OF FINDINGS

A. COST OF A PERMANENT FACILITY.

As stated in the Introduction, the cost of an Essex County Community College cannot be finally estimated until a reliable forecast of enrollment and programs offered is obtained from the questionnaire now in process. However, the procedures for estimation are developed in what is to follow and are used to derive the cost and financial impact upon the County of a proposed Essex County College. Although the facility assumed is not based upon final data reflecting the express desires of the Essex community, the Committee feels it is a realistic approximation to a serviceable facility. When the results of the questionnaire are received, the necessary adjustments will be made. The adjusted projections will form the subject matter of the Committee's next report in April.

CLASSROOM AND LABORATORY SPACE AND ENROLLMENT

The core space of a college is that in which instruction takes place, namely, the classrooms and laboratories. The point of departure in estimating the cost of a college facility is to ascertain how much of this core space is required. In the community college, the variable factors that have major influence on this space requirement are the number of students enrolled and their distribution as between technological and non-technological programs. The reason is that the technological programs require extensive, heavily-equipped laboratory space, apportioned at 100 to 150 square feet per student station; whereas the non-technological programs require mainly classroom space at up to 20 square feet per student station, or science laboratory space at up to 50 square feet per station. The space requirements are derived in Appendix A for three enrollment distribution cases of interest and the reader should refer to this derivation for details. Table 1. summarizes the results derived there. The areas given are to be considered total floor area of buildings, including allowances for corridors, lavatories, etc., which are introduced as an excess factor in the derivation.

PROPOSED DEVELOPMENT PROGRAM

It is now necessary to assume that the Essex County College would have a certain distribution of enrollment and would be developed over a given period of time. The Committee chose the assumptions in Table 2. on the basis of previous studies at the County and State levels of an Essex County Community College, the experience of other counties, and the opinions of local educators.

There are several reasons for recommending a two-phase development program. One is to avoid immediate commitment to facilities designed for specific programs until experience reveals clearly which programs are most in demand. Another is to permit concentration of development on the most necessary structures needed earliest. Still another is to ease the problems of financing and obtaining federal and state aid.

COST OF A PERMANENT SITE

In a later section, CHOICE OF SITE, under DETAILED ANALYSIS OF FINDINGS, locations and sites are extensively discussed and a favored location for the College is given. The cost of a site in the favored location

TABLE 1.

CLASSROOM AND LABORATORY SPACE REQUIRED FOR A COMMUNITY COLLEGE*

	Enrollment	Case I 60% Technl. (sq. ft.)	Case II 50% Technl. (sq. ft.)	Case III 40% Technl. (sq. ft.)
Classrooms	1000	28444	28444	28444
	2000	56888	56888	56888
	3000	85332	85332	85332
	4000	113776	113776	113776
Science Labs.	1000	15360	16000	16640
	2000	30720	32000	33280
	3000	46080	48000	49920
	4000	61440	64000	66560
Technology Labs.	1000	57600	48000	38400
	2000	115200	96000	76800
	3000	172800	144000	115200
	4000	230400	192000	153600

* See Appendix A for derivation of the space requirement for 1000 students

TABLE 2.

PROPOSED DEVELOPMENT PROGRAM

ESSEX COUNTY COMMUNITY COLLEGE

Building Program at Permanent Site	In two Phases - Phases I and II
PHASE I	
Start of Construction	March, 1968
Date of Completion	September, 1969
Capacity (Full-Time Day Students)	3000
PHASE II	
Start of Construction	Spring, 1971
Date of Completion	Fall, 1972
Capacity (Full-Time Day Students)	An Additional 1000
	(Total - 4000)

Note 1. Certain units planned for Phase II are essential for completing the facility begun in Phase I. Others are intended to provide for increased enrollment, should it develop.

Note 2. The total enrollment capacity, including Evening Division, can be estimated by taking three times the day-time capacity. Evening Division students generally take half as many credit hours, allowing twice as many to be accommodated as in the day time in the same facilities in the same period of time.

is likely to be in the range $20,000 to $35,000 per acre. These amounts are based upon the prices of property recently exchanged in the area and on preliminary opinions of realtors. For purposes of this report, it will be assumed that the cost of acquiring and preparing for construction a site of 50 acres in the favored location would be $30,000 per acre, or $1,500,000.

PHASE I STRUCTURES

The primary structures required in Phase I are classrooms and laboratories. Referring to Table I, the 3,000 students to be provided for in Phase I require the following space:

	CASE I 60% Technological Programs (sq. ft.)	CASE II 50% Technological Programs (sq. ft.)	CASE III 40% Technological Programs (sq. ft.)
Classrooms	85,332	85,332	85,332
Science Labs.	46,080	48,000	49,920
Technology Labs.	172,800	144,000	115,200

These requirements have been entered into a Phase I costing chart, Table 3, to which the reader should refer throughout the ensuing discussion. No attempt will be made to estimate the number of buildings needed to house the space required of each type. Below classroom space and laboratory space on Table 3 will be found two additional types of space which are essential in the initial program--that to house the library, guidance department, and administrative offices; and that for a "service building" for shared usage as a utilities building and temporary student center. In Phase II a new Administration/Guidance Building would be constructed, permitting the structure for joint library/guidance/administration use, erected in Phase I, to be used exclusively as a library. Also, in Phase II a student center would be provided, relieving the "service building" for exclusive use as a utilities structure.

For justification of the 33,000 square feet allotted to the library, see Appendix B. The 5,000 square feet assigned to the utilities building is in conformity with specifications for a similar structure recommended by Rutgers University for another college. This completes the extent of Phase I construction.

COST OF PHASE I DEVELOPMENT

During the Committee's investigation, unit costs of construction of Community Colleges were obtained from many sources (See Appendix C). A conservative average figure is $25/sq.ft., with variations from $18/sq.ft. to $35/sq.ft., depending upon the amount of open space, the type of building material used, and elaborateness of design. A high average figure today appears to be $30/sq.ft. The cost of structures planned for Phase I was computed at $25/sq.ft. and $30/sq.ft. and entered into Table 3. Totals were then taken. It was then necessary to add in Supplementary Costs. The percentages taken for these conform with current experience as verified by the

Committee. In some instances, Equipment Costs exceed 10%; but, at the same time, the Contingency taken is usually less than 10% (currently 6% in the State Department of Education). Thus, any disparities that exist should be compensating ones.

Next to be added were the costs of a heating plant and the very sizeable amount of parking lot paving needed at a community college. The amounts used were again verified against current prices and experience at existing schools. Again 10% contingency was taken on these items. Thereafter, the Supplementary Costs were added to the cost of structures previously totaled and, also, the estimated cost of a site, the whole yielding grand totals which represent the cost of Phase I development.

The overall cost of development for Phase I is seen to vary from a low of $11,139,000. (40% enrollment in Technological programs, $25/sq.ft. for construction) to a high of $15,112,000. (60% enrollment in Technological programs, $30/sq.ft. for construction). The unit costs for construction only may be compared with those reported in Appendix C, although it must be remembered that Phase I does not represent a completed facility, and would not be approved as such by the State. It is lacking, for example, a gymnasium and an auditorium.

PHASE II STRUCTURES

The primary purpose of Phase II is to provide the auxiliary units necessary to upgrade the Phase I configuration to a complete facility. A secondary purpose is to provide for increasing enrollment and for any existent demand for programs not hitherto offered. The costing chart, Table 4, summarizes a proposed Phase II program.

Gymnasium space, not included in Phase I, is now provided in a building of 60,000 sq.ft., which houses also a Health Education Center. It is very likely that there will be a sizeable demand for training in Medical Technology, Nursing, Hygienic Technology, etc. These programs, all concerned with the well-being of the individual, seem to associate well with gymnasium activities. Moreover, there is likely to be a cost advantage in centralizing such therapeutic and exercising equipment as is required both for health service education and the athletic programs. A more costly alternative would be to construct separate buildings for health education and gymnasium. However, laboratory facilities (biological, etc.) have already been provided in Phase I. Moreover, a separate gymnasium (to isolate men's and women's programs) might in any case have to be built at a future time, when requirements are clearer. For these reasons, the Health Education Center/Gymnasium construction seems logical as a first step. It has been assumed that the health program conducted in the new structure could accommodate an enrollment of 200.

The Student Center/Cafeteria will be an urgent requirement, since only limited facilities could be provided in the Service Building called for in Phase I. Since the Community College is a commuting school, the Student Center is vital to its operation.

The Administration/Guidance Building will permit administrative offices and the guidance department to be moved out of the Library, providing full usage of that structure for its intended purpose. The space of 25,000 square feet is in accord with the assignment of such space at other schools of the same size.

Start of Construction	CASE I — 6
March, 1968 Date of Completion September, 1969	Space for 3000 Day Students (Sq. Ft.)
Classrooms	85,332
Science Laboratories	46,080
Technology Laboratories	172,800
Library/Guidance/Admtn.	33,000
Service/Student Center	5,000
	342,212
SUPPLEMENTARY COSTS:	
Architect Fees (6%)	
Other* (4%)	
Equipment (10%)	
Contingency (10%)	
(*Landscaping, Surveys, Borings, Insurance Blueprints, Advertising, Concrete Testing, etc.)	
Heating Plant	
Paving	
Contingency (10%)	
TOTAL PHASE I COST OF CONSTRUCTION	
Unit Cost ($/Sq. Ft.)	
Unit Cost ($/Student)	
ESTIMATED COST OF SITE	
TOTAL PHASE I COST OF DEVELOPMENT	

TABLE 3
COST OF PHASE I DEVELOPMENT — ESSEX COUNTY COMMUNITY COLLEGE
(Thousands of Dollars — 3000 Full-Time Day Students)

CASE I — 60% TECHNOLOGICAL PROGRAMS			CASE II — 50% TECHNOLOGICAL PROGRAMS		
Space for 3000 Day Students (Sq. Ft.)	Cost of Construction At $25/Sq. Ft. Average	Cost of Construction At $30/Sq. Ft. Average	Space for 3000 Day Students (Sq. Ft.)	Cost of Construction At $25/Sq. Ft. Average	Cost of Construction At $30/Sq. Ft. Average
85,332	2,133	2,560	85,332	2,133	2,560
46,080	1,152	1,382	48,000	1,200	1,440
172,800	4,320	5,184	144,000	3,600	4,320
33,000	825	990	33,000	825	990
5,000	($15/sq.ft.) 75	($20/sq.ft.) 100	5,000	75	100
342,212	8,505	10,216	315,332	7,833	9,410
	511	613		470	565
	340	409		313	376
	851	1,022		783	941
	851	1,022		783	941
	200	200		200	200
	100	100		100	100
	30	30		30	30
	11,388	13,612		10,512	12,563
	$33.28	$39.78		$33.34	$39.84
	$3,796.00	$4,537.00		$3,504.00	$4,188.00
	1,500	1,500		1,500	1,500
	12,888	15,112		12,012	14,063

CASE III — 40% TECHNOLOGICAL PROGRAMS		
Space for 3000 Day Students (Sq. Ft.)	Cost of Construction At $25/Sq. Ft. Average	Cost of Construction At $30/Sq. Ft. Average
85,332	2,133	2,560
49,920	1,248	1,498
115,200	2,880	3,456
33,000	825	990
5,000	75	100
228,452	7,161	8,604
	430	516
	286	344
	716	860
	716	860
	200	200
	100	100
	30	30
	9,639	11,514
	$33.42	$39.92
	$3,213.00	$3,838.00
	1,500	1,500
	11,139	13,014

TABLE 4.

COST OF PHASE II DEVELOPMENT

ESSEX COUNTY COMMUNITY COLLEGE

(Thousands of Dollars - Additional 1000 Day Students)

Start of Construction Spring, 1971 Date of Completion Fall, 1972	CASES I, II, and III		
	Space Added (sq.ft.)	Cost of Construction ($30/sq.ft.)	Increase in Capacity (No. Day Students)
Gymnasium/Health Education Center	60000	1800	200
Student Center/Cafeteria	20000	600	
Administration/Guidance Building	25000	750	
Fine and Performing Arts/Auditorium Building	40000	1200	200
Classrooms	33000	990	300
Science Laboratories	13000	390	150
Technology Laboratories	20000	600	150
Library Wing	5000	150	
	216000	6480	1000
Supplementary Costs			
Architect Fees, Other* and Contingency (20%)		1300	
Equipment (10%)		650	
Heating Plant Expansion		100	
Additional Paving		25	
Contingency (10%)		13	
Total Phase II cost of Development		8568	
Unit Cost ($/sq.ft.)		$ 38.60	

* See Table 3.

A Fine and Performing Arts Building, including auditorium, is specified, which will lend further balance to the total facility. Sufficient space has been allotted to it to house programs of instruction in the arts beyond those required for enrichment of other curricula. The ultimate design of this structure should be kept flexible and not fixed until the needs of the college in this area become clear.

Additional classroom, science laboratory, and technological laboratory space, as well as a small addition to the library, have been provided on the assumption that increasing enrollment will require them. Should this not be the case, this portion of Phase II construction can be abandoned. The structure proposed would accommodate an estimated enrollment increment of 600.

COST OF PHASE II DEVELOPMENT

The average unit cost applied to Phase II construction, scheduled to begin, Spring, 1971, is $30/sq.ft. By 1971, $25/sq.ft. will cease to be a realistic figure and even $30/sq.ft. may be hard to achieve. At the latter figure, the total cost of Phase II structures comes to $6,500,000. To this amount, Supplementary Costs were computed and added as in Phase I, including provision for expansion of the heating plant and additional paving. The grand total of Phase II construction is $8,568,000. At its completion in 1972 Essex County would have a complete community college facility capable of handling 4,000 day students, and 8,000 youth and adults in the Evening Division.

No mention has been made of a Faculty Center to house faculty offices. Although such a structure is said to have many advantages, the Committee feels that faculty offices could be provided in the buildings already specified. Whether to construct a separate Faculty Center should properly be decided by the college administration and Board of Trustees.

COST OF THE COMPLETE FACILITY

In Table 5, Total Cost of Development, the total space and the lumped costs of Phase I and II are summarized. The complete college (including site, estimated to cost $1,500,000) would cost anywhere from $19,701,000 to $23,544,000 depending upon the size of enrollment in the technologies a and the average unit cost of construction.

Unit costs of construction have been computed and are given in the final lines of Table 5. Comparison with those shown in Appendix C for existing schools show them in some cases to be higher. This comes about mainly through employment of the $30/sq.ft. unit cost figure for Phase II, which is likely to prevail several years from now. Since the Essex County College will be built later than those now completed or under construction, it must be expected that, in a period of rising costs, the unit cost of construction will be greater. Moreover, it will continue to increase the longer construction is postponed.

The Committee warns that the costs of development estimated in Table 5 are predicated on construction taking place over the time periods indicated in Table 2. If it were to be delayed beyond these dates a correction factor of approximately 3% should be added for each year of such postponement.

Phase I Completion September, 1969 Phase II Completion September, 1972
Classrooms Science Laboratories Technology Laboratories Library Adm'tn./Guidance Bldg. Student Ctr./Cafeteria Gymnasium/Health Ctr. F. & P. Arts Ctr. Auditorium Service Bldg.
SUPPLEMENTARY COSTS: Architect Fees (6%) Other* (4%) Equipment (10%) Contingency (10%) (*Landscaping, Surveys, Borings, Insurance Blueprints, Advertising, Concrete Testing, etc.) Heating Plant Paving Contingency (10%)
TOTAL COST OF CONSTRUCTION - PH. I & II Unit Cost ($/Sq. Ft.) Unit Cost ($/Student) Unit Space (Sq. Ft./Student) ESTIMATED COST OF SITE
TOTAL COST OF DEVELOPMENT - PH. I & II

TABLE 5
TOTAL COST OF DEVELOPMENT — ESSEX COUNTY COMMUNITY COLLEGE
(Thousands of Dollars — 4000 Full-Time Day Students)

CASE I — 60% TECHNOLOGICAL PROGRAMS			CASE II — 50% TECHNOLOGICAL PROGRAMS		
Space for 4000 Day Students (Sq. Ft.)	Avg. Cost of Construction Ph. I - $25/Sq. Ft. Ph. II - $30/Sq. Ft.	Avg. Cost of Construction Ph. I - $30/Sq. Ft. Ph. II - $30/Sq. Ft.	Space for 4000 Day Students (Sq. Ft.)	Avg. Cost of Construction Ph. I - $25/Sq. Ft. Ph. II - $30/Sq. Ft.	Avg. Cost of Construction Ph. I - $30/Sq. Ft. Ph. II - $30/Sq. Ft.
118,332	3,123	3,550	118,332	3,123	3,550
59,080	1,542	1,772	61,000	1,590	1,830
192,800	4,920	5,784	164,000	4,200	4,920
38,000	975	1,040	38,000	975	1,040
25,000	750	750	25,000	750	750
20,000	600	600	20,000	600	600
60,000	1,800	1,800	60,000	1,800	1,800
40,000	1,200	1,200	40,000	1,200	1,200
5,000	($15/sq.ft.) 75	($20/sq.ft.) 100	5,000	75	100
558,212	14,985	16,596	531,332	14,313	15,790
	899	996		859	947
	600	664		572	632
	1,499	1,660		1431	1,579
	1,499	1,660		1431	1,579
	300	300		300	300
	125	125		125	125
	43	43		43	43
	19,950	22,044		19,074	20,995
	$35.74	$39.49		$35.90	$39.51
	$4,988.00	$5,511.00		$4,769.00	$5,249.00
140			133		
	1,500	1,500		1,500	1,500
	21,450	23,544		20,574	22,495

CASE III — 40% TECHNOLOGICAL PROGRAMS		
Space for 4000 Day Students (Sq. Ft.)	Avg. Cost of Construction Ph. I - $25/Sq. Ft. Ph. II - $30/Sq. Ft.	Avg. Cost of Construction Ph. I - $30/Sq. Ft. Ph. II - $30/Sq. Ft.
118,332	3,123	3,550
62,920	1,638	1,888
135,200	3,480	4,056
38,000	975	1,040
25,000	750	750
20,000	600	600
60,000	1,800	1,8000
40,000	1,200	1,200
5,000	75	100
504,452	13,641	14,984
	818	899
	546	599
	1,364	1,498
	1,364	1,498
	300	300
	125	125
	43	43
	18,201	19,946
	$36.08	$39.54
	$4,550.00	$4,987.00
126		
	1,500	1,500
	19,701	21,446

It should also be observed that, due to the many intangibles in reckoning development costs - paramount among them the enrollment to be provided for, and size of demand for specific technologies -- the overall amount will always lie in some region of uncertainty. The questionnaire results, it is hoped, will constrict this region somewhat. Also, it is always possible to build a facility to accommodate a given number of students, irrespective of demand. The facility outlined above is the Committee's view of what may be required to meet the demand, insofar as it can be presently predicted. Using the procedures employed above, the cost of a lesser facility can be obtained, if and whenever desired.

FINANCING DEVELOPMENT COSTS

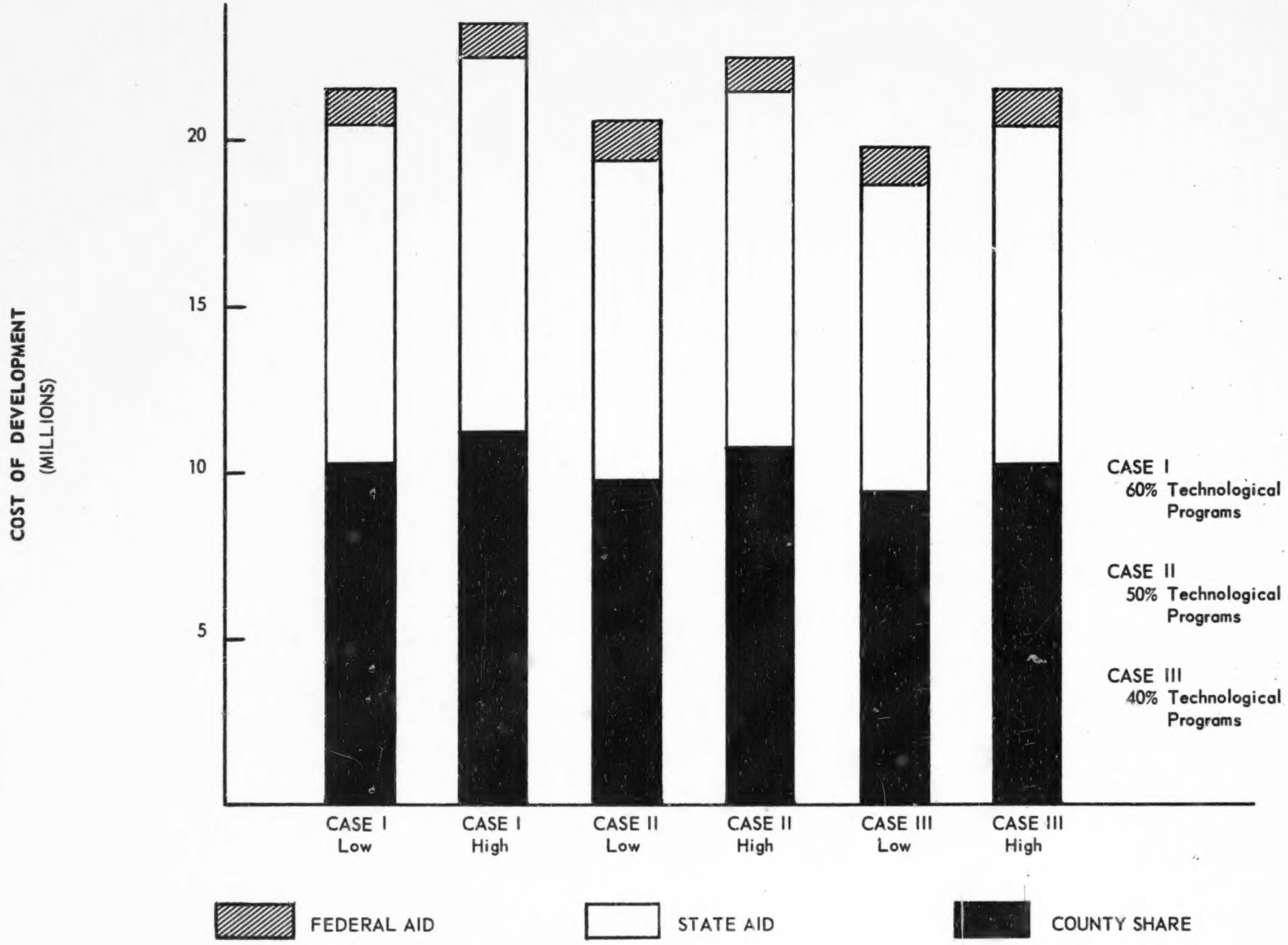
Figure 1 depicts the sharing of development costs among Federal Government, State, and County. The costs of development shown are those derived in Table 5. The three cases correspond to the 60%, 50%, and 40% levels of enrollment in the technologies. The "high" and "low" figures correspond to the $25/sq.ft. and $30/sq.ft. alternative costing of Phase I. The County share is seen to be in the neighborhood of $10,000,000.

Federal Aid

The current annual contribution of the Federal government to New Jersey for County Colleges is $1.3 millions. In calendar 1965, the amount received was $2.8 millions but $1.5 millions of this amount represented payments through retroactive application of the Federal Higher Education Act. Of the $1.3 million to be dispensed in the 1966-1967 fiscal year there is little possibility that Essex County will receive any. The reasons are as follows: The allotments are made by the State according to the State Plan which prescribes the formulas for allotment. Three closing dates are specified for receiving requests for Federal funds. They are July 31, November 15, and March 15. Essentially, those requests received by the first date are first satisfied, those by the second date, next, etc. Those not satisfied by the time the funds are all apportioned are carried over to the following year. The current situation is that, of the counties applying in 1965, all received full grants except Cumberland. It will therefore be the first to be considered in 1966. Moreover, several other counties will have their requests in, no doubt, by July 31, 1966 and will be next to be considered after Cumberland. There is no possibility that Essex County can submit its request before July 31, 1966, closing date, since the legally prescribed sequence of events (See Fig. 6, page 34) would not permit appointment of trustees before that date, let alone the selection of a president. The second closing date can conceivably be met, if the schedule presented in Figure 6 is maintained. However, since the funds will almost surely be fully expended by those counties meeting the first closing date, Essex County's request will normally be held over for consideration July 31, 1967. At that time there is an excellent chance it will be approved. The amount of aid available then indicates that Essex would be allotted about $500,000. It is necessary to point out, however, that allotted funds currently are not being received until a year or more after the date of allotment. Thus, the earliest time at which Essex County could expect to actually have the funds in hand would be July 31, 1968. A copy of the State Plan is in the files of the Committee.

The sole possibility of receiving larger aid from the Federal Government rests upon there being an increase in appropriations for county college construction. The current political and military situation would seem to preclude this possibility.

FIG. I
SHARING OF THE TOTAL COST OF DEVELOPMENT
ESSEX COUNTY COMMUNITY COLLEGE
(Proposed Facility for 4000 Full-Time Day Students)



State Aid

The County College legislation of 1962 permits the State to contribute 50% of the development cost of a County College, subject, of course, to adequate monies being appropriated by the Legislature. Current practice is to interpret this as 50% of the balance after Federal Aid has been deducted. The County share shown in Fig. 1 assumes that the 50% of the balance would be forthcoming.

As to the likelihood that the State would default on its share by failing to appropriate adequate funds, the Committee regards this possibility to be very remote. With the County College movement in New Jersey accelerating as it is, the Committee also believes that public opinion would be overwhelming in demanding adequate appropriations if there were any inclination on the part of the State to withhold support.

Cost to the County

The cost to the County of the 4,000 day-student facility is shown on Figure 1 to be about $10,000,000. The cost of a facility to accommodate 3,000 students or fewer would be commensurately less than that indicated in Figure 1.

In Figure 2 is presented a possible plan for financing the County's share of the full $20,500,000 development program corresponding to the low estimate for Case II. Two 20-year bond issues are projected, the first ($6,000,000) in Fall of 1967, to finance Phase I construction; the second ($4,000,000) in Fall of 1970, to finance Phase II construction. The equalized valuations of Essex County property used to compute the tax rate increases assume increments of 0.15 billions per year starting from the recently advertised valuation for 1966 of approximately 5.15 billions. This 0.15 billion annual increment is just above the current rate of increase. No attempt has been made to project the valuation beyond 1971.

FINANCING OPERATIONAL COSTS

The manner of estimating the cost of operation of the proposed College was to project enrollments and then apply unit operating costs that prevail in neighboring institutions.

Enrollment Projections

In Figure 3 is plotted the projected enrollment at an Essex County College against school year of operation. Included also are the number of students admitted each Fall, assuming that 20% of those admitted the previous year left for one reason or another. As shown, the school would occupy temporary facilities from September 1967, to September, 1969, at which time Phase I construction would be complete. Enrollment would continue to rise through 1970 and 1971 reaching the capacity number of 3,000. By September, 1972, Phase II construction would be completed and open for usage, permitting the enrollment to mount toward its ultimate ceiling of 4,000 students. Note that in the years 1969 to 1971 and 1972 to 1973 the school would be operating below its enrollment capacity while phasing into newly available facilities, with the consequent "underutilization" of these facilities. During these periods per capita operating costs will be inordinately high because of the lack of state aid and student tuition equivalent to the gap in enrollment. This matter is discussed further on following page.

FIG. 2

TAX RATE INCREASE FOR DEVELOPMENT - ESSEX COUNTY COMMUNITY COLLEGE

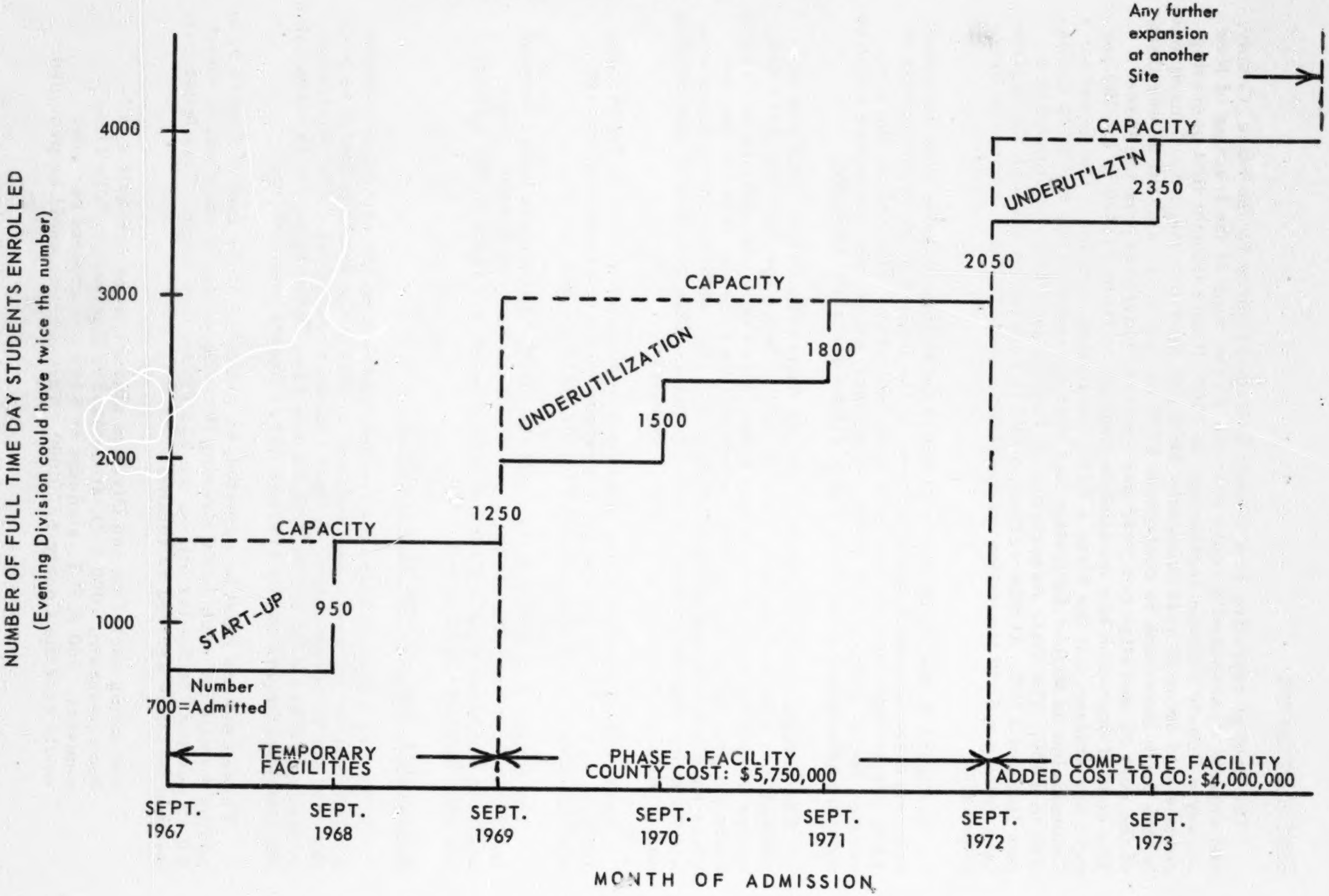
(For Proposed Facility and Projected Enrollments)

Bond Issue - Fall, 1967
Term: 20 years, to Fall, 1987
Amount: $6,000,000
To Fund: Phase I
Rate: 4%
Type: Serial, Level Debt Service

Bond Issue - Fall, 1970
Term: 20 years, to Fall, 1990
Amount: $4,000,000
To Fund: Phase II
Rate: 4%
Type: Serial, Level Debt Service

School Year Of Operation	Maturities (dollars)	Interest (dollars)	Service (dollars)	Essex Valuation (est. billions)	Millage Tax Increase For Development
1966-1967	(Cost of site options, site preparation, if any, and early staffing)				(?)
1967-1968	200,000	240,000	440,000	5.30	8.30
1968-1969	210,000	230,000	440,000	5.45	8.07
1969-1970	215,000	225,000	440,000	5.60	7.86
1970-1971	230,000	210,000	440,000	5.75	7.65
1971-1972	370,000	360,000	730,000	5.90	12.37
....	....	....	....		
1986-1987	670,000	60,000	730,000	(?)	(?)
1987-1988	255,000	40,000	295,000	(?)	(?)
....	....	....	....		
1990-1991	250,000	10,000	260,000	(?)	(?)
TOTAL:	$10,000,000	$4,585,000	$14,585,000		

FIG. 3
PROJECTED ENROLLMENT AND ADMISSIONS, 1967-1973
ESSEX COUNTY COMMUNITY COLLEGE



(Nos. admitted assume 20% attrition of each class at end of first year.)

Cost of Operation

The cost of operation of a County College is borne by the State, County, and student in supposedly equal shares. At the time of the framing of New Jersey's County College legislation in 1962, it was thought that operating costs would come to approximately $600 per year per student. Consequently, the State undertook to contribute $200 per year per student or one third of the cost of operation per year per student, whichever was the lesser. The cost of operation has meanwhile doubled to from $1,200 to $1,300 per year per student, but the State's $200 limitation remains. The Governor's Commission on Higher Education has recommended lifting the $200 limitation to $400. The State Association of Freeholders has recommended a new limit of $700. At this writing, a bill is proceeding through the legislature setting a $600 limitation on the State's contribution. It appears likely to pass.

In Figure 4, the enrollments drawn from Figure 3, have been recorded and converted to annual operating cost to the County at an assumed rate of $400 per student through the 1970-71 school year. Thereafter, the conversion factor employed is $600 per student, which the Committee believes must be anticipated eventually due to rising costs and inflation.

The column labeled "Underutilization Operating Costs" (UOC) is explained in a note to Figure 4. The amount of these for 1967-68, $160,000, is due to staffing a full program at a time when only one class is on campus. State aid and tuition during that period will be received only for the one class enrolled, although administration and staff employed are adequate to handle more than one class and must be paid. This situation is unavoidable and is similar to "start-up" costs in industry.

Underutilization Operating Costs are again encountered in the periods 1969-71 and 1972-73 for the same reasons -- a certain amount of overstaffing which is not compensated for by state aid and tuition.

The County's share of tuition and the "UOC" burden are added to yield the Total Operating Cost to the County and the per capita cost. Then, applying the same equalization valuations given in Figure 2. the millage tax rate increase is obtained.

FINANCIAL IMPACT ON THE COUNTY

In Figure 5 the tax increase for debt service on the capital investment in plant and for operation are summed to obtain the total tax increase over the next six or seven years. A final column showing the dollar equivalent in taxes on a home valued at $20,000 has been added as an aid in visualizing the financial impact on the average Essex County homeowner.

These amounts must be adjusted, as indicated at the foot of Figure 5, by adding 4 mills for each 1,000 Evening Division students enrolled, or about $0.80 per year to the tax bill on the $20,000-valued home. This latter correction factor is derived as follows:

> Assuming each Evening Division student takes one-half a full-time program, 1000 E.D. students=500 Equivalent Full-Time students. 500 E.F.T. students at $400 per student per year would cost the County $200,000. This amount would be provided

FIG. 4
TAX RATE INCREASE FOR OPERATION
ESSEX COUNTY COMMUNITY COLLEGE
(For Proposed Facility, Projected Enrollments, Anticipated Aid)

SCHOOL YEAR OF OPERATION	ENROLLMENT(1)	COUNTY COST DUE TO ENROLLMENT (2)	UNDERUTILIZATION OPERATING COSTS (3)	TOTAL OPERATING COST TO COUNTY	COUNTY COST PER ENROLLEE	ESSEX VALUATION (BILLIONS) est.	MILLAGE TAX INCREASE FOR OPERATION
1966–67	–	–	–	$300,000 (est.)	–	5.15	5.8
1967–68	700	$280,000	$160,000	$440,000	628	5.30	8.3
1968–69	1500	$600,000	–	$600,000	400	5.45	11.0
1969–70	2000	$800,000	$400,000	$1,200,000	600	5.60	21.4
1970–71	2500	$1,000,000	$200,000	$1,200,000	480	5.75	20.8
1971–72	3000	$1,800,000	–	$1,800,000	600	5.90	30.5
1972–73	3500	$2,100,000	$250,000	$2,350,000	672	6.05	38.8
1973–	4000	$2,400,000	–	$2,400,000	600	6.20	40.0

(1) See Figure 3.

(2) Increase by $200/student enrolled in the Evening Division = about .004 mills/student Tax Increase.

(3) Underutilization Operating Costs are incurred when operating under capacity enrollment during which time the County is effectively obliged to contribute both the State's and student's share of operating expense, as well as its own share, for those students not enrolled. The UOC are reckoned here at 50% of unutilized student-year costs taken at $800/student to September 1971, $1000/student thereafter.

by about a 4 mill tax increase according to Essex County's current valuation. Since many Evening Division students will take less than one-half a full program, 4 mills is a conservative figure.

To the costs already covered must, of course, be added the cost of providing temporary quarters if the school is to open before September, 1969. This cost will be discussed in the next section.

FIG. 5

TOTAL TAX RATE INCREASE FOR DEVELOPMENT AND OPERATION

ESSEX COUNTY COMMUNITY COLLEGE

(For a Facility For 4000 Full-Time Day Students)

School Year Of Operation	Tax Rate Increase For Development (mills)	Tax Rate Increase For Operation (mills)	Total Tax Rate Increase (1) (mills)	Annual Tax Increase On Home Valued At $20,000 (dollars)
1966-1967	(?)	5.8	5.8+	$ 1.16+
1967-1968	8.3	8.3	16.6	3.32
1968-1969	8.1	11.0	19.1	3.82
1969-1970	7.9	21.4	29.3	5.86
1970-1971	7.7	20.8	28.5	5.70
1971-1972	12.4	30.5	42.9	8.58
1972-1973	12.0	38.8	50.8	10.16
1973-	11.8	40.0	51.8 (2)	$ 10.36

(1) Add 4 mills for each 1000 students enrolled in the Evening Division in any one year = $.80 per year on the Annual Tax Increase.

(2) Total Tax Rate Increase would stabilize at about 50 mills per year until the Fall of 1987; drop to 45 mills, the Fall of 1990; thereafter settle at the rate required to meet operating costs.

B. CHOICE OF A SITE

INTRODUCTORY COMMENT

The State has recommended a minimum of 45 acres for the site of a County College. The Haney Committee, in its report issued June 27, 1964, recommended that the Essex County College be built on 8 acres at the rear of the Essex County Hospital grounds in Belleville, a site that the State later declared to be

(N.A. = Not Applicable)

SITE	ORDER OF PREFERENCE		GEOGRAPHY			
Number	Permanent	Temporary Only	Location	Acreage (min.)	General Location Countywise	Bus Transportation
1	1	N. A.	West Orange	50	Central Excellent	Good, all points Additional service promised
2	2	N. A.	West Orange	50	Central Good	Good
3	3	N. A.	West Orange	50	Central Good	Fair
4	4	N. A.	Belleville	35	East Central Fair	Nwk. Sub. - Bus N.W. - Fair S.W. - Poor
5	5	N. A.	West Orange	47	Excellent	Good
6	6	N. A.	Cedar Grove Montclair	50	Fair	No service now within ½ mile
7	7	N. A.	West Orange	40	South Central Fair	Limited
8	8	N. A.	West Orange	46	Central Good	Good
9	9	N. A.	Central Newark	30	East Central Fair	Nwk. - Good N. & W. - Good S. - Fair
10	10	N. A.	North Newark	35	East Central Fair	Nwk. - Subway E. - Good NW-Fair - SW-Poor
11	11	3	Downtown Newark	3	Poor	Nwk. - Good E. & S. - Fair Central - Poor
12	N. A.	1	West Orange	5	Good	Good
13	N. A.	2	Central Newark	2	Fair	Good Also, Rail
14	N. A.	4	Belleville	2	Poor	Poor

TABLE 6. SITE ANALYSIS — ESSEX COUNTY COMMUNITY COLLEGE

ACCESS			PHYSICAL FEATURES			
Automobile Transportation	Traffic Patterns	Parking	Topography	Adaptability (Site Preparation Usable Bldgs.)	Room For Expansion	Aesthetic Appeal
Excellent All directions	Oppose Commuter Flow	Developable Also space near by	Superior	Good. Home and farm bldgs. good condition	Very Promising	Superior. High, commanding
Good	Oppose Commuter Flow	Existing and Developable	Superior	Very good. Many usable buildings	Some	Good
Fair	Oppose Commuter Flow	Developable	Superior	Requires clearing. No bldgs.	Potentially great	Good
Nwk. & E. - Good N.W. - Fair S.W. - Poor	Average	Developable	Level. Fully developed	Many bldgs. No site prep. required	Possible	Fair
Excellent	Good	Developable	Poor	Average. No bldgs.	Promising	Fair
Fair	Average	Developable	Very good	Very Good. Usable buildings	Plentiful	Very Good
Fair Poor in bad weather	Limited access, egress	Developable	Low sloping	Good No buildings	Potentially some	Good
Good	Congested. Divided in two by public highway	Poor	Good	Very good. Existing facilities fairly adaptable	Doubtful	Fair
Good	Poor In line of Commuter flow	Developable	Level. Pond on site	Some clearing necessary. No buildings	Potentially some	Fair
Fair	Average	Developable	Level. Pond on site	Cleared. No buildings	Potentially great	Good
Fair	Very Congested	Poor. Possibility of parking garage	Level. Fully built upon	At least $2,000,000 to renovate	Up to 350,000 sq. ft. total	Poor
Good	Very Congested	Almost None	Level. Fully built upon	Requires complete renovation	Up to 435,000 sq. ft. total	None
Fair	Congested	Almost None	Level. Fully built upon	5 floors to renovate. Heavy power	None	Poor
Poor	Average	Parking field	Level. Fully built upon	1-story. Expensive to renovate	Potentially another 100,000 sq. ft.	Poor

PROCURABILITY			COMMENT
Ownership	Rental	Sale	
Private	No	Yes. Price high	Town may be reluctant to relinquish ratable
Private	No	(?)	Now occupied. But may be made available
Public	No	No. Land swap only	Park Commission property
Public	No	No	County property. Would require relocation of existing facilities
Private	No	Yes. Over $1,000,000	Excellent, except for topography. Low
Private	No	Yes. About $1,000,000	Excellent site, except for poor accessibility
Public	No	No. Land swap only	Park Commission property
Private	No	Land and buildings $3,500,000	Existing facilities, although attracive for college adaptation, hardly justify cost
Public	No	No. Land swap only	Park Commission property
Public	No	No. Land swap only	Park Commission property
Private	Not all until Fall '67	Possible	Choice urban land and properties. Price high
Private	Yes. All or part	Yes. $950,000	Vacated industrial plant. Reinforced concrete - elevators - toilets - heavy power
Private	Yes. 40¢/sq. ft.	Yes. 275,000	Vacated industrial plant. Reinforced concrete - 100% sprinklered. Heavy power
Private	Yes. $1.25/sq. ft.	(?)	Vacated industrial plant - 100% sprinklered. Windowless

inadequate. The present investigation has thus far included a preliminary examination of fourteen sites, for the purpose not only of recommending an optimum location, but also for determining what order of magnitude of cost will be encountered for site acquisition. Their suitability as a location for the college has been summarized in a rating table, Table 6, and they have been given an order of preference based on the degree to which they possess the characteristics of a desirable site. A number of questions in the Questionnaire for Parents are designed to give guidance in the geographic choice of site and the results will be analyzed for their significance relative to the general location favored by the Committee.

Classification of Sites

There are three types of site that must be distinguished one from the other insofar as their usage affects the cost of development:

1. Permanent Sites Only. These are sites on which a permanent facility could be constructed but which have no existing structures on them which could be employed, or adapted, for temporary usage until new construction became available.

2. Temporary Sites Only. These are sites having structures upon them in which the school could be housed during a period of a year or two while construction was proceeding at a permanent location. They would not be suitable as a permanent home for the college.

3. Temporary-Permanent Sites. These are sites on which the permanent institution could be developed and which already have on them buildings which, at a moderate cost, could be adapted for use as a temporary facility, or as the nucleus of a temporary facility.

Costwise, the Temporary-Permanent sites are easily the most desirable. Acquisition of such a site would make unnecessary the major renovation for temporary use of a separate structure, such as an industrial plant, which would cost $1,000,000 to $2,000,000, judging by the experience at other schools. Such major renovations would be required by the State authorities if the structure were to be used for a period any longer than one year, according to the State Department of Education. What is more, rental of the temporary facility would be a further additional cost, amounting to perhaps $100,000 yearly.

On the other hand, the Committee believes that the State authorities are likely to be much more tolerant in their requirement for modification and renovation of structures on a permanent site when it is clear that work is proceeding on the ultimate facility.

Six of the Permanent Sites identified in Table 6 have some usable buildings on them. Several lack certain other desirable characteristics; the remaining group must rate as the most favored of all sites considered. They are likely to be, it turns out, the most expensive sites. It must be remembered, however, that the money saved in not having to employ a separate temporary facility may more than justify the added expense of acquiring and moving into a permanent site immediately.

Campus-Type versus Urban Vertical Structures

In the thinking of some, Essex County will ultimately have two County College locations, one in Newark or close by, and another more centrally located in the County. Conversations with Park Commission personnel have made it appear extremely unlikely that property of the Commission could be acquired. Also, conversations with the Newark Housing Authority make it seem very doubtful that urban redevelopment land would be made available. Thus, it is likely that any Newark location would have to be a vertical structure. Any campus-type site requiring acreage, would have to be more centrally located in the County. It is the unanimous opinion of this Committee that in a very short time adequate locations (35-50 acres) for a campus-type site will no longer be obtainable in Essex County, except by condemnation. Therefore, if a campus-type site is ever to be part of a County College facility, it should be acquired now. To put it another way, urban sites will continue to become available (e.g., in redevelopment areas), but open acreage is fast disappearing in this county; therefore, the site requiring acreage should be procured first.

As regards the relative cost of developing "horizontal" or "vertical" campuses, it has been pointed out that the added cost of a multiple-unit horizontal facility over a vertical high-rise structure is partly compensated for by the necessity in the latter to provide special facilities for moving students and supplies up and down, and to provide necessary safety features.

Finally, it has been the opinion of just about every educator and informed individual interviewed on this subject that a campus-type site is to be preferred. Various reasons given include 1) room for expansion, 2) better psychological climate among faculty and students 3) greater ease of administration. 4) need for the urban student to extend his environment.

SPECIFIC SELECTION CRITERIA

The Committee deems the main attributes of a favorable site to be the following:

Favorable location relative to the population served.

Ease of access by public and private transportation (including adequate parking).

Procurability (Including cost)

Existence of structures for use as temporary quarters during construction.

Some discussion of each of these attributes will be helpful.

Location In the opinion of the Committee, the location geographically in the County is crucial to the success and future of the school. The Committee has been guided by the thinking that this is to be a college for all of the County and not to serve one section or another. This is in the tradition of the Community College elsewhere in the country. It is historically an institution in which the educational aspirations of the community can be realized; it provides a meeting place of minds devoted to the cultural well-being of the community; it supplies a reservoir of talent to the industrial, commercial, and labor markets of the County. If the College is instituted and operated to achieve these ends, it will effectively knit together the elements of the County into a "community", in the true sense of the word.

On this consideration then alone, and without regard to others that might be overriding, the Committee believes that the college should be located as close to the geographical center of the County as possible.

Access

Being a commuting school, it goes without saying that maximum ease of access from all points of the County is mandatory. In two to three years the main artery of local travel through the County will be Route No. 280, the East-West Freeway. Over this superhighway it will be customary to cross the County in no more than 20 minutes, in fair weather or foul. The Committee has contacted the bus company holding the franchise for the intracounty area to be served by the Freeway. It has received assurances that every effort would be made to provide adequate transportation along this highway and to connections with feeder routes.

The Committee recommends that the site of the Community College be chosen as close to the Freeway as possible. This would necessitate only one stretch of travel over secondary roads (between the Freeway and the students homes) rather than two stretches (to and from the Freeway) or a stretch of continuous travel over secondary roads. Furthermore, the very considerable amount of traffic generated by the school would be kept off the already clogged thoroughfares in urban Essex.

Still another consideration is to locate the school at such a point that school traffic will flow in a direction opposite to that of the commuter traffic flow. This strengthens the recommendation for a central location along the Freeway, rather than an easterly one.

Finally, the necessity for providing parking accommodations for several thousand cars is directly related to ease of access. Without adequate open space, ingress and egress from parking areas would be chaotic. Locating parking areas contiguous to the Freeway would alleviate this problem to a great extent. The problems presented by a daily influx of several thousand additional cars to urban Newark, on the other hand, would be very difficult, to say the least.

Physical Features

Topography of the site is a factor of major importance. In general, a high location is to be preferred to a low one; a level one to a sharply inclined site; a site with firm sub-soil conditions to one of a poor composition. Attention also should be paid to obtaining a site not requiring too costly preparation (grading, blasting, etc.) before construction.

Closely related to topography is aesthetic appeal. A site is favored that stimulates the imagination of students and faculty, one that by virtue of its physical features, presents to the passerby an inspiring image of educational opportunity in Essex County. Generally speaking, an aesthetically appealing site is one that is situated in a pleasing natural environment, commands an unobstructed view, and is open to the air and sunlight.

The Committee urges that as part of the selection process the proposed site be carefully evaluated by competent individuals for its proclivity toward generating optimum traffic patterns, for its possession of desirable topographic features, and for its aesthetic appeal.

Procurability

This attribute is a sine qua non. No matter how desirable a site is, it must be acquirable at a price within the County's ability to pay. The County College legislation does provide for the exercise of the right of eminent domain. It would still, however, be incumbent upon the County to demonstrate the need for condemnation, if legal action were brought to block condemnation proceedings.

Sites also divide themselves into those privately owned and those publicly owned. The latter variety existing in the County are mostly either County-owned or Park Commission property. As has been stated earlier, there is virtually no prospect of the Park Commission's relinquishing hand for a college. It has never reduced its holdings, to this Committee's knowledge, except by land swap and that, in only two instances, apparently. Some possibility exists of enlisting the resources of the Park Commission in acquiring additional land, some of which might thereupon be leased to the County for a college site. Particularly attractive to the Commission might be the acquisition of land contiguous to property it now holds, especially if the Commission felt that additional park land or unique park facilities were needed to serve the surrounding area or the County.

County-owned land suitable for a college site is very scarce. Where it exists, in order to acquire sufficient acreage, county facilities now occupying such land would have to be relocated. One such site is the one originally proposed by the Haney Committee--The County Hospital site in Belleville. The Committee will be pleased to present its views to the Freeholders with reference to employing this site, if requested.

The private sites divide themselves in several ways: Urban vs. Suburban Sites; Rental vs. Purchaseable Sites; Temporary vs. Permanent Sites; Immediately Available Sites vs. Those Available in the Future.

As stated in the Introduction to this section, a site is favored that is suitable also for temporary use and procurable in time to make the necessary renovations. The savings effected in acquiring such a site, it is reiterated, may be as much as $2,000,000.

In discussing the acquisition of a site from a private owner, the County should not fail to call attention to the tax advantages to the donor of land to an educational institution. Nor should the possibility be overlooked of offering as an inducement to sale the memorialization of the owner or his antecedents in the naming of laboratory buildings, auditoriums, or even the campus itself.

The Committee recommends the early appointment of a Site Selection Committee of the Freeholders empowered to negotiate for particular properties.

THE FAVORED LOCATION

The Committee believes that the location in the County that most clearly provides a site with the attributes sought is the area in the proximity of the East-West Freeway in the municipality of West Orange. It recommends that a Freeholder Site Selection Committee be directed to investigate the feasibility of acquiring up to 50 acres in this area and to ascertain the price of the same. It further recommends that, if the prospect of acquiring a site in this location proves favorable, the County Engineer, the County Planning Officer, and a qualified school architect be appointed to assess in detail the suitability of the available land as a location for the Essex County Community College.

OTHER SITES

In Table 6, SITE ANALYSIS-ESSEX COUNTY COMMUNITY COLLEGE will be found a summary of sites considered but not investigated in detail. The favored site is listed as No. 1. The Committee, at the pleasure of the Freeholders, will be ready to discuss whatever information it has on any of these sites. It is felt, however, that a Freeholders Site Selection Committee, as recommended, is needed to pursue further site investigations.

COMMENT

It has come to the notice of the Committee that the prospect of a non-taxable County College in its midst would be viewed with alarm by some municipalities because of the loss of ratable property. The Committee feels it should point out several offsetting factors. The first of these is the business brought into the Community by the daily influx of several thousand college students. Second is the benefit to be derived from the sale of homes to many of the hundred or more new faculty members and administrators who will likely wish to locate and trade in the municipality. Third is the distinction attached to the municipality from being the seat of the County College and the hub of its many activities, particularly those that link the college with the business and commercial world of the County. It is the belief of this Committee that, over a period of years, the municipality that is fortunate enough to become the home of the County College will not merely learn to tolerate it, but will become increasingly jealous of guarding its prerogatives as "the County College town."

TEMPORARY FACILITIES

As has been stated earlier, temporary facilities at a location other than the permanent site should be acquired only if the permanent site includes no renovatable structures, or if it cannot be taken possession of in sufficient time to prepare for the scheduled opening date. Assuming the latter circumstances describe the situation, where can such temporary facilities be found?

Separate Temporary Facilities

The Committee has located four possible sites with structures situated on them that could conceivably be leased and renovated for use as temporary quarters for the college. One of these, Site 11 in Table 6, is located in downtown Newark and involves two adjoining structures, one said to be available for lease almost immediately, the other available in whole or in part, within eighteen months to two years, when most of the present tenants are scheduled to move to a new building under construction. The first structure comprises about 35,000 sq.ft. of floor area on thirteen floors, the second about 300,000 sq.ft. on eight floors. Since 100,000 sq.ft. is, in the Committee's judgment, the minimum area required for the 700 students who would be enrolled in Fall of 1967 (Figure 3, page 21), and since, in the second year of operation, the enrollment may double, the first structure mentioned is clearly inadequate. At least 65,000 square feet in the second structure would be needed in addition the first year, and another 100,000 square feet the next year (1968-69). The availability of space in the second structure when it is needed obviously presents a problem. However, if the necessary space could be found in these buildings, it is the belief of the Committee that, with suitable renovation, they could be made to serve as a temporary home for the school. A very serious problem of parking would be created, of course, which would require solution. Public transportation by bus from points in and close to Newark would be good, but from most outlying points in the County, so poor as to discourage many who might otherwise enroll. The cost of leasing either of these structures is not known and should be ascertained by the Freeholders Site Committee through the owners or a broker.

Site No. 13., also in Newark, is a vacated industrial plant, close to the Ampere Station of the Lackawanna Railroad. No parking to speak of is available except on neighboring streets. The 100,000 square feet on five floors could be leased at about 40¢/sq.ft. The floor area is said to be open, and temporary partitions could be created at a moderate price. No more than the 700 first-year students could be accommodated.

Site No. 12, in West Orange, also a vacated industrial plant, offers 450,000 sq. ft., much more than needed for the temporary facility. Location countywise is good and there is reasonably good bus service which could be augmented. Parking is again a problem. According to a broker. the building could be leased in part, or purchased for $950,000.

The fourth site, No. 14, is on the extreme edge of Essex County in Belleville. Access to it from most points in the County would be extremely poor. The building is windowless. Rental is high, $1.25/sq.ft. About all that would recommend it is the presence of a parking field.

Temporary Facilities at the Permanent Site

There are several small buildings standing on the sites in the area of the favored location and further space might be acquired in buildings nearby. The cost of preparing these and additional structures for temporary usage will be appreciable (possibly $500,000, which is about what it is costing Middlesex County College to renovate nine old buildings.) However, renovated structures standing on a permanent site can continue to be used, unlike those at a separate temporary facility. Moreover, the degree of renovation acceptable to the State may be less than that at a separate facility, since permanent construction would very soon be under way. Parking could also probably be arranged nearby.

Site No. 2. is presently occupied and encompasses structures now used for instructional purposes that with almost no modification could be used to house the County College. It is not as favorably situated as other sites in the favored location and there is grave doubt as to whether the present owner would consider relinquishment of the property.

Site No. 4. also has a full complement of buildings which could serve as temporary quarters during a construction and renovation period. This site could only be considered, however, if the County chose to relocate long existing facilities now occupying it. The use of this site as both the temporary and permanent location of the College would represent a major and long-term decision on the part of the Freeholders. It is extremely doubtful such a decision could be reached and implemented in time for college operations to begin by Fall, 1967.

Cost of a Temporary Facility

For purposes of rough estimation the cost formulas in Table 7 permit computation of the cost of temporary facilities, based upon experience at other schools. About 130 sq.ft. per student should be assumed.

TABLE 7

APPROXIMATE COST OF A TEMPORARY FACILITY TO HOUSE THE ESSEX COUNTY COMMUNITY COLLEGE

At a Permanent Site	
Renovation of Existing Structures	$5 to $10 per sq.ft. of floor area, depending on condition & design of buildings
Temporary Construction	$15 to $20 per sq.ft.
Rental (nearby space)	$.75 to $1.25 per sq.ft. per year
At a Temporary Site	$15 to $1.25
Renovation of Existing Structures	$15 to $20 per sq.ft.
Rental	$.75 to $1.25 per sq.ft. per year

Example: To provide 100,000 sq.ft. (for 700 students) at a permanent location having 30,000 sq.ft. now in renovatable structures:

Renovate 30,000 sq.ft. @ $8/sq.ft.	$240,000
Construct 20,000 sq.ft. @ $15/sq.ft.	300,000
2-year Rental 50,000 sq.ft. @ $1/sq.ft. per year	100,000
Total	$640,000

Note. The renovated buildings and new construction on a permanent site would be usable through Phase I as temporary Phase II structures.

C. THE DEVELOPMENT TIMETABLE

The sequence of steps in establishing a County College is carefully prescribed by law. The applicable legislation will be found in Chapter 41 of the Laws of 1962 of the State of New Jersey, Assembly Bill 17, Article 2a, County Colleges. This legislation, in effect, governs the rate of development and controls the time within which the College can be put "on stream" from the time of its conception. For example, it would be impossible, as the law is written, to open the doors of an Essex County College to students before the fall of 1967. Indeed, very close timing is required to achieve that date. In Figure 6, MILESTONES IN THE DEVELOPMENT OF THE ESSEX COUNTY COMMUNITY COLLEGE, the major steps toward realizaation of the school have been charted. The ensuing discussion will refer to this figure.

Five separate divisions of Figure 6 have been made horizontally to show the responsibilities of the five bodies that must take action as time proceeds. These are the Cost Fact-Finding Committee, now reporting; the Freeholders, to whom this report is addressed; the Trustees, whose appointment would follow a decision on the part of the Freeholders to move forward, assuming no referendum is called for; the President, whom the Trustees would appoint and who would assemble his staff; the Board of Estimate, which certifies the school budget to the Freeholders.

The time line has been extended from the present to the Spring of 1968 when work must be well started at the permanent site.

The Milestone Chart is almost self-explanatory. Careful examination of it will reveal the necessity for precise timing of interlocking and interdependent actions. A brief discussion will serve to point out the critical features.

Cost Fact-Finding Committee. As indicated, the current Interim Report will be followed by a later report in April which will adjust the findings to conform with the requirements reflected by the Questionnaire to Parents.

The Freeholders. Assuming the Freeholders accept and approve both Fact-Finding Committee reports, their next action would be to prepare and publish a resolution that an Essex County College be established. Not sooner than 10 days thereafter, a public hearing must be called to advise the public of The Board's plans. Immediately thereafter, the Freeholders would normally give final passage to the resolution that there be a college, said resolution having to be filed and published in the county press within 5 days. The 45 days ensuing are designated as a petition period. During this time a petition for public referendum on whether or not to establish a County College may be submitted. It must satisfy certain conditions: (1) It must carry the signatures of 5% or 10,000 of the registered voters of the County, whichever is smaller; or, (2) It may be submitted by a group of municipalities of the County which comprise 15% or more of the County's population. If a petition satisfying either of these conditions is submitted within the 45-day period, the Freeholders are obliged to hold a public referendum. This could probably not be arranged, except by special election, before November and, if required, would postpone further action on the College by at least one year, if not more. A referendum may also be called for by the Board of Freeholders itself.

FIG. 6

— 1966 —

	1/1		2/1		3/1		4/1		5/1		6/1		7/1
COST FACT-FINDING COMMITTEE						* Interim Report		* Final Report					
FREEHOLDERS					* Frame Resolution PUBLIC RELATIONS Information office, speakers, bulletin, etc.		10d min. ⟶ ↓ * Publish Resolution	* Public Hearing	5d max. ⟶ ↓ * Final Passage	* Publish & File		— SELECT TRUSTEES —	— 45 days min. petition pd. —
TRUSTEES												Request applications for President (Using County Supt., acting as Trustee)	*
PRESIDENT													
BOARD OF ESTIMATE													

MILESTONES IN THE DEVELOPMENT OF THE ESSEX COUNTY COMMUNITY COL

8/1	9/1	10/1	11/1	12/1	1/1	2/1	3/1	4/1
* Appoint Trustees	* Obtain temporary site for 1/1 possession	* Appoint Members to Board of Estimate (By 12/1)	* Obtain permanent site for possession by 5/1/67	* Project budget (1967)	* Take possession of temporary site		* Finalize 1967 budget	
							— FLOAT BOND	
* Obtain Legal Counsel	* Select President	* Apply for Fed. funds ←	Meets 2nd closing date under State Plan	* Hire Perm. Site Arch.	[TWELVE			MON
Apply for Accreditation		* Hire Temp. Site Contractor	* Appts. to Bd. of Estimate	* Approve Temp. Site Plans	* Begin work on Temp. Site	* Report to Bd. of Estimate (by 2/1)		* File with State applica to operat
INTERVIEW FOR PRESIDENT	*							
		— Interview applicants for Deans, Administration, Dept. Heads —			— Continue interview for Deans, Administration, Dept. Heads —			
					* Announce 1967-68 Term	* Choose Deans	* Choose Dpt. Heads	* Issue Cours Catalog
						— ADVERTISE FOR AND INTERVIEW FACULTY		
					* Organize	* — Fix — costs		
						* Certify costs to Freeholders		

COLLEGE

— 1967 —

4/1	5/1	6/1	7/1	8/1	9/1	10/1	11/1	12/1
T BOND ISSUE —	* Take possession of permanent site							
MONTHS		FOR	ARCHITECT		TO	COMPLETE		PLANS
* File with te application to operate		— Periodic Review of Building Program —			* Complete work at Temporary Site	* Receive Fed. Funds (earliest date)		
* Issue Course Catalog ACULTY ——		* Complete 1967-68 staff			* School opens			

— 1968 —

1/1	2/1	3/1	4/1	5/1
* State review of plans	* Let 1st contract at Permanent Site	* Start work at Permanent Site PERMANENT SITE REMAINS UNDER CONSTRUCTION FROM 3/1/68 TO 9/1/69 (18 mos.), OPENS SEPT. 1969		* 2nd Semester Apply for right to grant Associate Degrees

During the waiting period for petition, progress can be made in the search for and selection of a Board of Trustees. The eight members of the nine-man Board to be selected (The County Superintendent of Schools is automatically a Trustee) can be appointed during the waiting period, or immediately following it, assuming no referendum is called for.

Trustees. While the selection of trustees is in progress, it is suggested that the County Superintendent, as Trustee, initiate the search for a President. Hopefully, applications for this office would be ready for review by the newly-appointed Trustees. Interviews could be scheduled to follow appointment of the Board of Trustees and a decision should be reached prior to the start of the 1966 school year. If an offer to a potential President were delayed beyond September 1, 1966 he would probably be committed by contract to his current post.

President. The last four months of 1966 would be busy ones indeed for the Trustees and the newly chosen President. The application for Federal funds is a first order of business (before November 15th, to meet the second closing date under the State Plan); work at a temporary site, if there is to be one, must go forward in order to be ready for opening September, 1967; a start must be made on assembling key staff members so that they, in turn, can aid in the recruitment of faculty and formulation of the program to be offered; budgets must be prepared and a myriad of other administrative chores attended to.

Twelve months have been allotted to the preparation of plans for the permanent buildings, starting with the appointment of an architect by December 1st of this year (1966) and continuing to December 1st of 1967. Construction may begin after favorable review of these plans by the State, a procedure usually requiring one month. With work at the permanent site starting March 1, 1968, there is a reasonable chance that by September of 1969, i.e., within 18 months, the school could be operating at its permanent home.

Although the projection of a time-table like the foregoing may seem to lie outside the province of a Cost Fact-Finding Committee, this is only partially true. The interest of this Committee in scheduling arises from the fact that postponement would result in a very appreciable increase in the cost of the College. In other words, if the school is to be established, the Committee is obliged to point out that, from a cost viewpoint, it is a case of "the sooner, the cheaper". The Milestone Chart is presented, therefore, only to emphasize this point, and the Committee realizes that the Trustees and President will wish to formulate a much more detailed timetable.

D. THE QUESTIONNAIRE TO PARENTS

In Appendix D will be found a reproduction of the Questionnaire to Parents which has been circulated through all of the public and parochial schools of the County. The distribution has been to a random sample of one out of every four parents of eleventh graders of these schools. The eleventh-grade group was chosen since it may be the first class to be offered admission to the County College.

Purpose of the Questionnaire

Although previous questionnaires had been employed to test sentiment for a County College, The Committee felt a new one was desirable for four reasons: 1) Earlier questionnaires had been rather rudimentary in construction, including a limited number of questions, none of which touched on such matters as cost, site, commuting distance, etc. 2) Previous questionnaires had sampled only the student and not the parent, who also plays a major role in the college decision. 3) Over two years had elapsed since the last questionnaire had been circulated. 4) The Committee's findings had to rest upon a solid data base which would have to include an expression of the needs and desires of those who would be served by the College.

Structure and Analysis of the Questionnaire

The questionnaire has been set up as a stratified sample, employing three separate stratifications: 1) Location of school by region. 2) Student achievement. 3) Socio-economic level. Three regional levels of the County are identified and given on Table 8 below.

TABLE 8

REGIONAL LEVELS OF STRATIFICATION

(Location of schools by Region)

QUESTIONNAIRE TO PARENTS

CORE REGION	RING REGION	SUBURB REGION
Newark	Belleville	The Caldwells
Irvington	Bloomfield	Cedar Grove
East Orange	Glen Ridge	Livingston
Orange	South Orange	Essex Fells
	Maplewood	Roseland
	Montclair	Millburn
	Nutley	Fairfield
	Verona	
	West Orange	

The region-school code imprinted at the head of page 3 of the questionnaire permits a tally of the sub-totals, by region and school, of parents answering any question in a given way. It also permits determining what percentage these regional or school subtotals are of all those parents receiving and answering the questionnaire, or of all those answering some other question in a given way, etc.

Question 2 permits similar calculations by four levels of student achievement- excellent, good, average, or below average. Question 3 allows the analysis to be extended by distinguishing between responses on the basis of any of five levels of education that the parent may have received- education being used as the indicator of socio-economic level. The sub-totals and percentages can then be scaled upward from the sample size to the total eleventh-grade enrollment, to the enrollment of any other grade, or to the population of any county school district or region. For example, it will be possible to say what percentage of eleventh grade parents in East Orange High School (Region/School Code 31) who presently plan to send their child to a four-year college costing not more than $1000 per year (Question 5, Answer(1)) would urge their child to attend Essex County Community College for the main reason that it would be cheaper (Question 7, Answer (2)).

A rather thorough analysis yielding answers like the above is planned. The questionnaire answers will be key-punched on cards and the various sub-totals and percentages will be tabulated by an electronic computer. The results will be presented in the Committee's next report.

The Committee wishes to take this opportunity to publicly thank all those in the public and parochial schools who have cooperated in processing this this questionnaire; also, we wish to thank the Essex County Parent Teachers Council and the Office of the County Superintendent of Schools for their aid and assistance which have been indispensable to the success of this questionnaire project.

A more complete discussion of the questionnaire and the response to it will be included in the Committee's final report. Also, the impact of the questionnaire on the outlines of the Essex County Community College projected earlier in this report will be fully discussed in that document.

IV. APPENDICES

APPENDIX A

DERIVATION OF CLASSROOM AND LABORATORY SPACE REQUIRED FOR A COMMUNITY COLLEGE

The space required for 1000 students is derived. It is assumed they are enrolled in three separate types of program: Liberal Arts (A), Science (S), and Technology (T) and require three types of space: Classroom (CL), Science (SL) Laboratory; Technological Laboratory (TL) The number of hours each program group is assigned to a given type of space is typical of that indicated in Community College catalogs.

Three cases are considered according to the weight of technological programs relative to non-technological ones, the former requiring more space. All three distributions are included in the first table. The remaining tabular values are derived by application of successive factors as indicated. The factors are drawn, for the most part, from publications of the Educational Facilities Laboratory, New York City, a Rockefeller Foundation-sponsored research organization in school facilities.

1. DISTRIBUTIONS ASSUMED

	CASE I		CASE II		CASE III	
	N=No. Enrolled	Percent of Total	N=No. Enrolled	Percent of Total	N=No. Enrolled	Percent of Total
A	200	20%	250	25%	300	30%
S	200	20%	250	25%	300	30%
T	600	60%	500	50%	400	40%

2. AVERAGE SCHEDULED HOURS OF INSTRUCTIONS PER STUDENT PER WEEK

	CASE I				CASE II				CASE III			
	N	CL	SL	TL	N	CL	SL	TL	N	CL	SL	TL
A	200	16	3	-	250	16	3	-	300	16	3	-
S	200	16	6	-	250	16	6	-	300	16	6	-
T	600	16	3	-	500	16	3	6	400	16	3	6

3. AVERAGE NO. OF OCCUPANCY HRS./WK.

	CASE I				CASE II				CASE III			
	N	CL	SL	TL	N	CL	SL	TL	N	CL	SL	TL
A	200	3200	600	-	250	4000	750	-	300	4800	900	-
S	200	3200	1200	-	250	4000	1500	-	300	4800	1800	-
T	600	9600	1800	3600	500	8000	1500	3000	400	6400	1200	2400

4. AVERAGE NO. OF OCCUPIED STATIONS

(HRS./WK./STN. ASSUMED: FOR CL, 15; FOR SL, 10; FOR TL, 10)

	CASE I				CASE II				CASE III			
	N	CL	SL	TL	N	CL	SL	TL	N	CL	SL	TL
A	200	213	60	-	250	266	75	-	300	320	90	-
S	200	213	120	-	250	266	150	-	300	320	180	-
T	600	639	180	360	500	532	150	300	400	426	120	240

5. TOTAL NO. OF STATIONS REQUIRED

(EXCESS FACTOR ASSUMED FOR ROOM UTILIZATIONS, CORRIDORS, LAVATORIES, ETC.: For CL, 5/3; For SL & TL, 4/3)

	CASE I				CASE II				CASE III			
	N	CL	SL	TL	N	CL	SL	TL	N	CL	SL	TL
A	200	356	80	-	250	444	100	-	300	533	120	-
S	200	356	160	-	250	444	100	-	300	533	240	-
T	600	1068	240	480	500	888	200	400	400	711	160	320

6. AREA REQUIRED FOR 1000 STUDENTS (SQ. FT.)

(SQ. FT. PER STATION ASSUMED: FOR CL, 16; FOR SL, 32; FOR TL, 120)

	CASE I				CASE II				CASE III			
	N	CL	SL	TL	N	CL	SL	TL	N	CL	SL	TL
A	200	5689	2560	-	250	7111	3200	-	300	8533	3840	-
S	200	5689	5120	-	250	7111	6400	-	300	8533	7680	-
T	600	17066	7680	57600	500	14222	6400	48000	400	11388	5120	38400
TOTAL		28444	15360	57600		28444	16000	48000		28444	16640	38400

APPENDIX B

BREAKDOWN OF LIBRARY SPACE

The estimates below are derived from recommendations for library space found in Guide For Planning Community College Facilities, Frank P. Merlo and W. Donald Walling, Rutgers University, 1964.

60000 Vols at 15 vol./sq.ft.	4000 sq. ft.
25% of 3000 readers @ 25 sq.ft./reader	18750 " "
Stacks	2000 " "
Work Space	2000 " "
Office and Conference Rooms	2000 " "
Audio/Visual/Telecom Space	4000 " "
	32750 " "

APPENDIX C

UNIT SPACE REQUIREMENTS AND UNIT COSTS FOR COLLEGE CONSTRUCTION

(These follow as Figures C-1, C-2, C-3, and C-4)

FIG. C-I

UNIT SPACE — NO. OF SQ. FT. PER FULL TIME DAY STUDENT

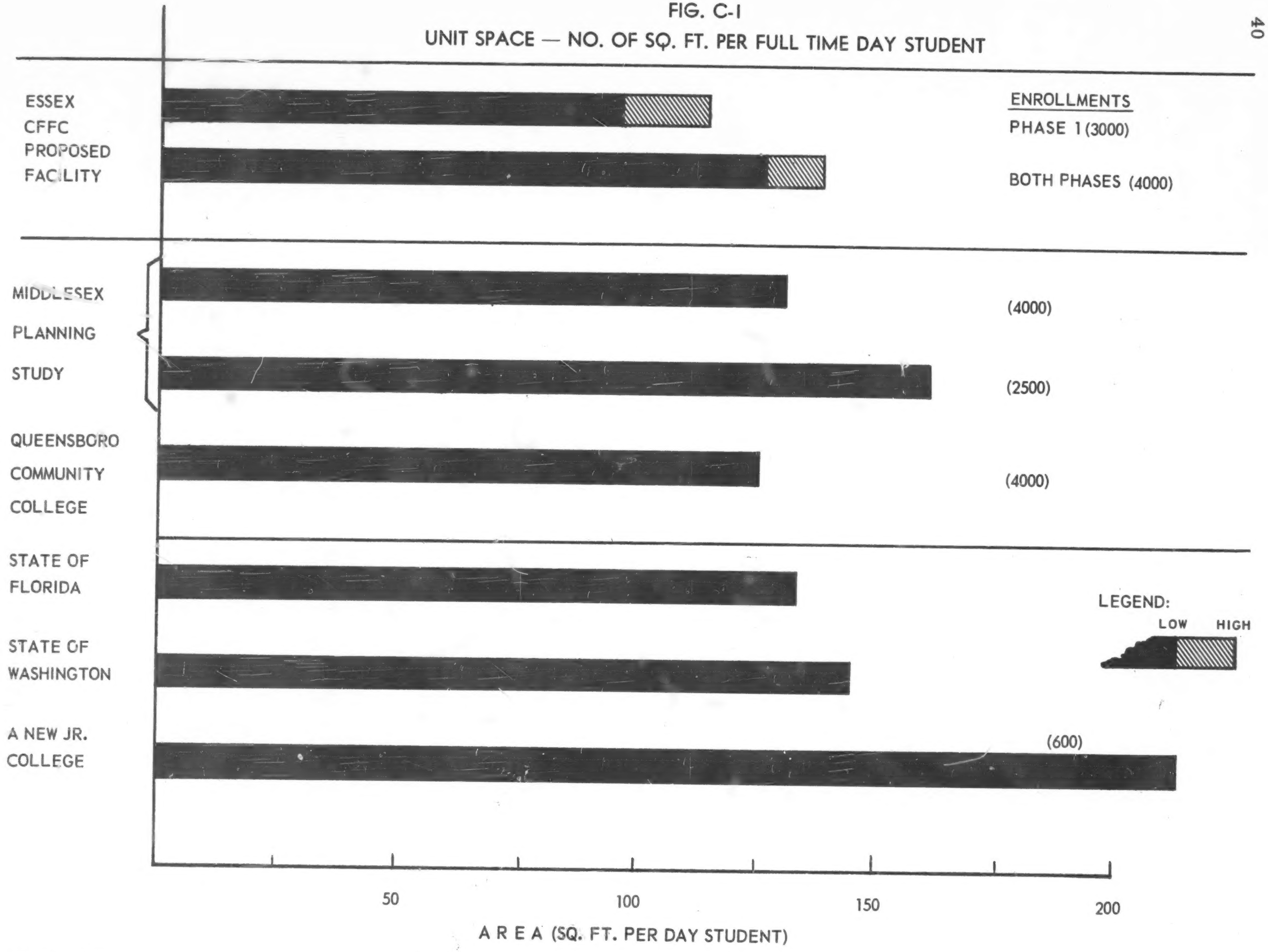


FIG. C-2

UNIT COST OF DEVELOPMENT AT A NEW SITE — DOLLARS PER SQ. FT.

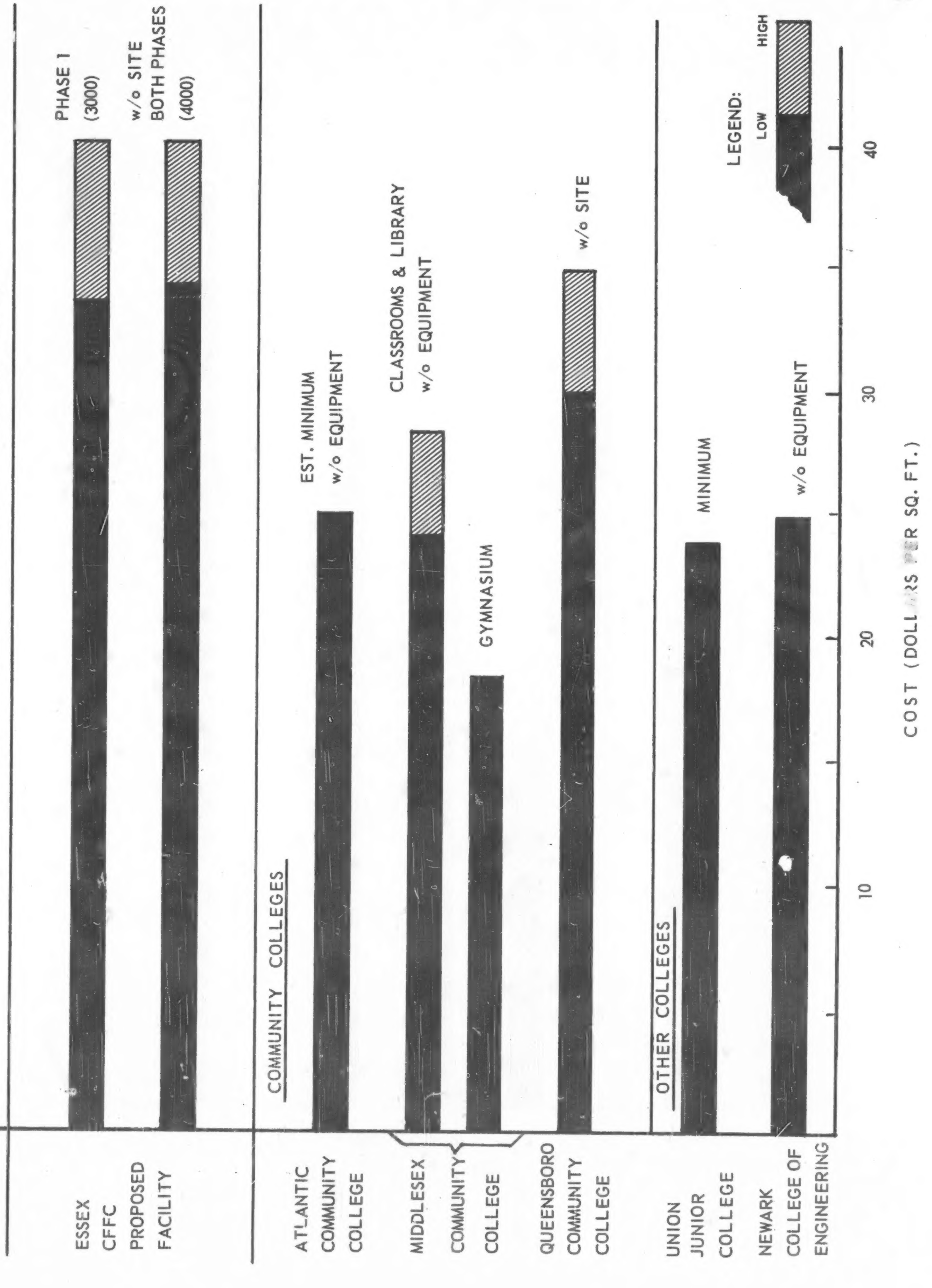


FIG. C-3

UNIT COST OF DEVELOPMENT AT A NEW SITE — DOLLARS PER FTD STUDENT

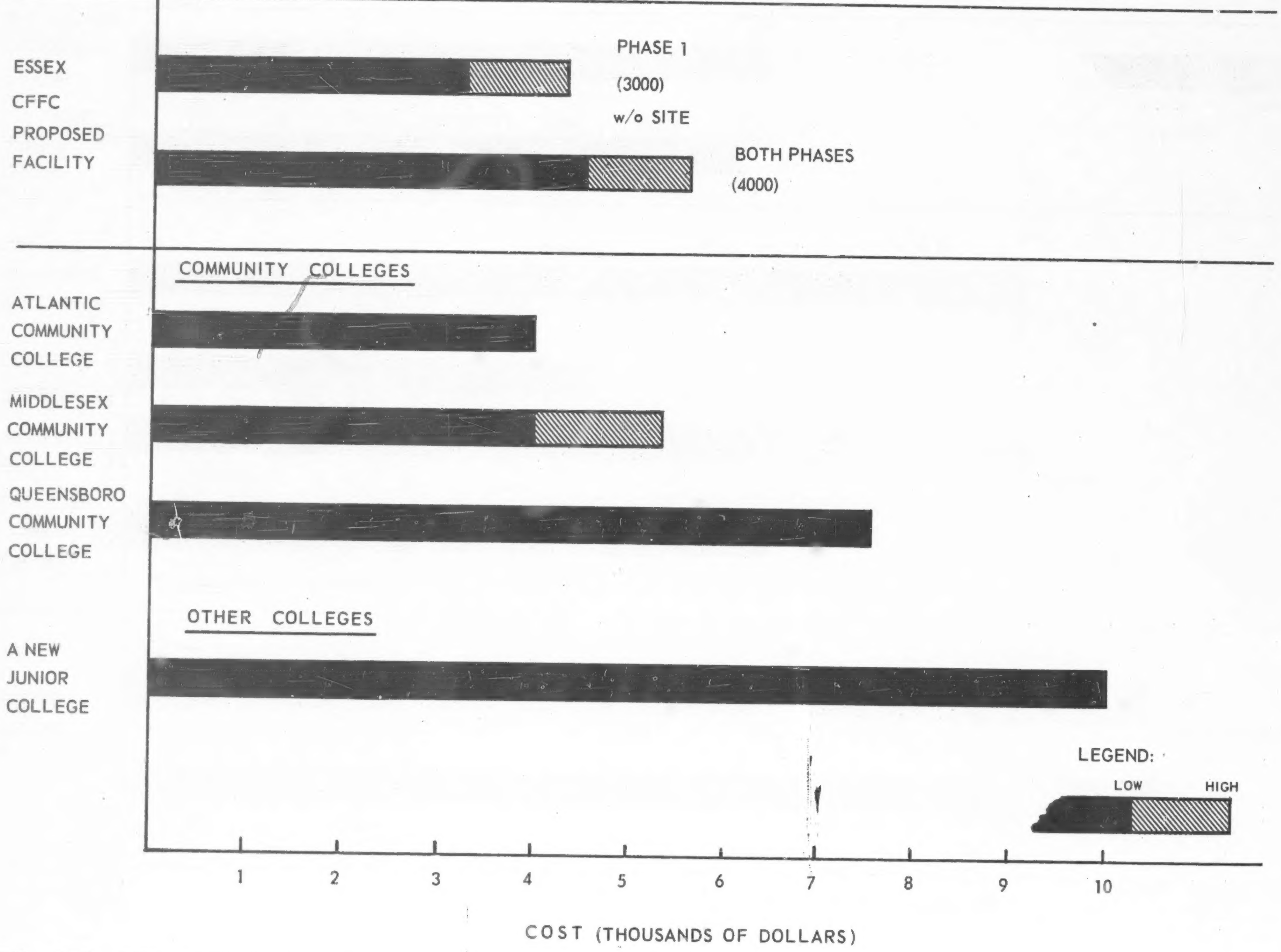
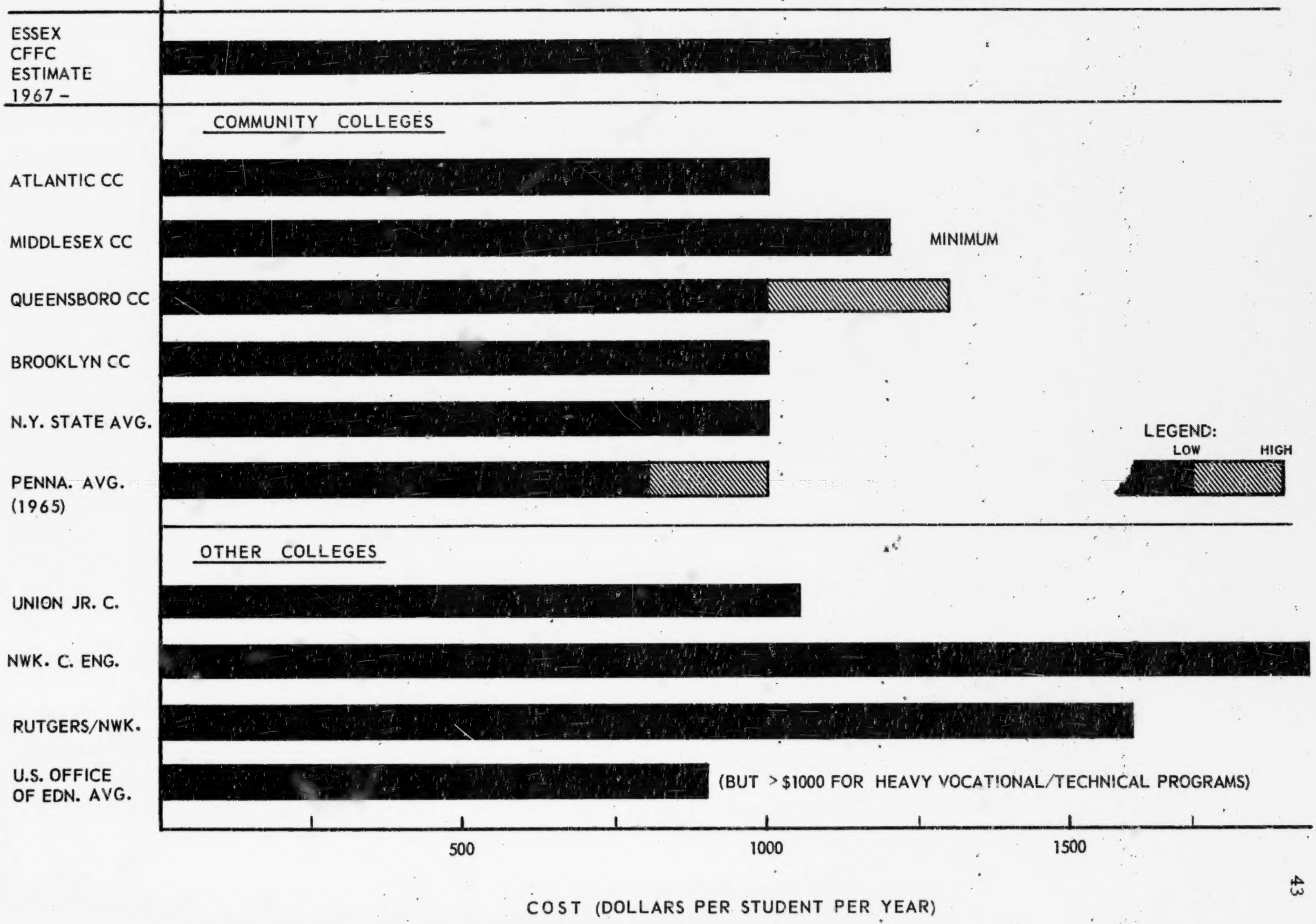


FIG. C-4

UNIT OPERATING COST — DOLLARS PER STUDENT PER YEAR



APPENDIX D

THE QUESTIONNAIRE TO PARENTS

FREEHOLDERS COST FACT-FINDING COMMITTEE
FOR THE
ESSEX COUNTY COMMUNITY COLLEGE

C. MALCOLM DAVIS
CHAIRMAN
MRS. REYNOLD E. BURCH
FRED LANDOLPHI
HARRY LATIMER
ALFRED C. LINKLETTER

ROBERT H. SPOHN
CONSULTANT

ESSEX COUNTY PLANNING DEPT.
520 BELLEVILLE AVENUE, BLDG. #3
BELLEVILLE, N. J. 07109
Phone 751-4350

A Message

Dear Parent,

Your Essex County Board of Freeholders through its Cost Fact-Finding Committee, is collecting the information it needs for guidance in establishing the kind of Community College which will best serve the needs of Essex County. Several studies already have been made recommending the establishment of such a school. The present committee is now seeking help from you, the parents of potential Community College students, in order to obtain an estimate of enrollments when the college opens. These estimates will aid the Freeholders in determining how large a college is needed, where in Essex County it should be located, what courses it should offer, what it will cost to construct and operate, how much tuition must be charged, etc.

Each parent receiving this questionnaire, therefore, is asked to read carefully the next page describing briefly the distinguishing features of a community college and, then, to answer thoughtfully the questions which follow.

It is not necessary to sign your name to the questionnaire.

Thank you,
C. Malcolm Davis, Chairman
Mrs. Reynold E. Burch
Fred Landolphi
Harry Latimer
Alfred C. Linkletter

Robert H. Spohn, Consultant

What Is A Community College Like?

The Community College is a relatively new type of two-year college that is just now making its appearance in many sections of the country. It stands between the high school and the university. It places emphasis on education throughout life and reflects changing patterns in the world's way of doing things which have created new needs for higher education.

Essex County Community College when established will be one of many soon to open in New Jersey. It will be a college to serve Essex County youth and adults and Essex County labor, business, and industry. It will perform this service by enrolling Essex County high school graduates in preference to those of any other area; by guiding and counseling them through two years of higher education; and by preparing them for career positions or for transfer into higher institutions where they can acquire even more advanced education. At the same time, it will offer adults the opportunity to improve their education at their own pace and perhaps qualify themselves for new and better jobs.

The college will be able to provide higher education at minimum cost to you for two reasons:

(1) Most of the operating cost will be borne by the State and County.

(2) The student will live at home and commute to school, thus saving the cost of meals and dormitory incurred at most other colleges. To facilitate commuting, an effort will be made to locate the college within easy access of main highways and public transportation.

Programs offered will be of two types: terminal and transfer.

Terminal Programs will give the graduate an Associate's degree after two years of satisfactory work. He will be able to specialize in such fields as Electrical Technology, Computer Programming, Secretarial Science, Accounting, Medical Laboratory Technology, Marketing and Advertising, etc. The industries and businesses of Essex County will cooperate in planning these programs and will be anxious to hire competent graduates . . .

Transfer Programs will qualify those students who have satisfactorily completed the two-year course for entrance into the third year of a four-year institution, in most cases without entrance examination. They will include such fields as Pre-Engineering, Liberal Arts, Business, Pure and Applied Sciences.

A wide variety of special programs in the broad area of adult education will also be offered.

The Community College is a true college. Students will be required to take a balanced program in art appreciation, science, and social studies in addition to the courses in their specialty, and high standards will be maintained. Faculty and staff will be the best that can be assembled. A full program of student activities will be fostered.

A PTA worker or other volunteer helper will assist you in completing this questionnaire, if you wish. To get help, call

Mr.
Mrs. .... at ....

Thank you for giving us your cooperation in carrying out this survey.

Region/School Code (Please disregard. For Committee use only.) (______)

Essex County Community College Questionnaire For Parents

Directions: Before you start to answer the questions below, be sure you have read the description on the opposite page of the proposed Essex County Community College. When you are ready to proceed, read each question carefully, decide on your answer, then **place the number** representing your answer in the answer space provided in the right column. **All answers will be numbers.** If you feel unable to answer a given question, or if a given question does not apply to you, simply leave the answer space for it blank. It will be helpful to refer to the description of the Community College on the opposite page from time to time while deciding on your answer.

1. Is your eleventh-grader a boy or a girl?
   (1) Boy (2) Girl
   1. (______)

2. About what is your child's average mark or performance in all of his* courses or work since he* began high school?
   (1) A or excellent (2) B or good (3) C or average
   (4) D or below average
   2. (______)

3. What schooling have you, the parent or guardian who is completing this questionnaire, had? (Highest level)
   (1) No schooling
   (2) Grade school education
   (3) Some high school work
   (4) Graduate of a high school
   (5) Two years or more of college
   3. (______)

4. I do not plan to send my child to college because (Do not answer if you do plan to send him.)
   (1) His marks are too low
   (2) He plans to work
   (3) He is being married
   (4) He doesn't want to go
   (5) He is entering military service
   (6) He is continuing his education or training, but not at a college
   (7) We cannot afford to send him
   4. (______)

5. I plan to send my child to a 4-year college costing not more than (Leave blank if you have no such plan.)
   (1) \$1000 per year
   (2) \$2000 per year
   (3) \$3000 per year
   (4) \$3500 per year
   5. (______)

6. I would consider sending my child to the Essex County Community College if the total cost to our family were (Supply the number corresponding to the highest amount you would be able to pay.)
   (1) About \$1000 per year
   (2) Between \$500 and \$1000 per year
   (3) Between \$200 and \$500 per year
   (4) About \$200 per year
   6. (______)

---

*Throughout the questionnaire, "his" means either his or her; "he" means either he or she; "him" means either him or her.

7-8. I would urge my child to attend the Essex County Community College because (If possible, select both a main reason and a next most important reason.)

(1) I like the idea of having him live at home while at school.

(2) It would be cheaper than to send him to another school.

(3) He would be interested in taking one of the two-year career-type programs.

(4) As an Essex County resident, or being of average ability, he would be more likely to have his application accepted than at another school.

(5) He could transfer to another school for his last two years, having saved money the first two years by attending the Community College.

(6) He would have a good chance of getting a job, especially in Essex County.

7. (______) Main reason

8. (______) Next reason

9. If my child attended Essex County Community College, he probably would commute to it by

(1) Automobile (his own or in a car pool)

(2) Public transportation (bus or other)

9. (______)

10. The greatest commuting distance I would regard as reasonable would be

(1) A few blocks

(2) 2 miles

(3) 5 miles

(4) 10 miles

10. (______)

11. I would send my child to Essex County Community College only if the college had (If not important to you, do not answer.)

(1) An intramural athletic program (within the school only).

(2) A full program of intramural and intercollegiate athletic competition (contests with other schools).

11. (______)

12. If my child were to attend Essex County Community College, the **one** program he would be most likely to enroll in would be (Don't hesitate to discuss, before answering, with your son or daughter.)

Transfer Type (Requiring an additional two years at another college for the Bachelor's degree.)

(1) Liberal Arts (languages, history, mathematics, etc.)

(2) Business

(3) Pre-Engineering

(4) Natural Sciences (biology, pre-medical, etc.)

(5) Social Sciences (sociology, economics)

(6) Chemistry

(7) Physics

Career Type (Terminating with an Associate degree in two years)

(10) Liberal Arts

(11) Accounting

(12) Marketing and Advertising

(13) Secretarial Science

(14) Nursing

(15) Social Welfare Work

(16) Electrical Technology

(17) Mechanical Technology

(18) Chemical Technology

(19) Medical Technology

(20) Pharmaceutical Technology

(21) Computer Technology

(22) Communications Technology

(23) Hotel Technology

(24) Drafting and Design

(25) Banking and Insurance

12. (______)

13. I, myself, would consider enrolling in the Adult Education or Evening Division at the Community College to take work in (Choose a number from those given in Question 12, above.)

13. (______)

14. Do you favor the establishment of an Essex County Community College, whether or not your son or daughter would attend it?

(1) Yes (2) No

14. (______)

APPENDIX E

ACTIVITIES OF THE COMMITTEE

Conference and Visits

Nov. 1, 1965	Meeting of the Committee, Fidelity Union Trust Co., Newark.
Nov. 8, 1965	Conference with Dr. Harold Hoffman, Superintendent of Schools, Livingston.
Nov. 10, 1965	Visit to Bronx Community College to confer with Dr. Sidney Silverman, President, and Professor Paul Rosenfeld.
Nov. 10, 1965	Visit to Queensborough Community College to confer with Dr. John C. Lackas, Dean of Administration.
Nov. 10, 1965	Attendance at Forum on the Community College of the Associated Community Councils of Newark, at the Newark Public Library.
Nov. 11, 1965	Conference with Julius C. Bernstein, Principal, Livingston High School.
Nov. 12, 1965	Visit to Brooklyn Community College to confer with Professor Alfred M. Mascolo, Assistant Dean of Administration.
Nov. 16, 1965	Conference with Miss Olive Brady, Guidance Counselor, Livingston High School.
Nov. 18, 1965	Meeting of the Committee, Fidelity Union Trust Co., Newark.
Nov. 21-22, 1965	Attendance at Conference on The Community College in Higher Education, at Lehigh University. Conversations with many administrators, trustees, and educators.
Nov. 24, 1965	Conference with Dr. William S. Twichell, Superintendent of Schools, Essex County.
Nov. 24, 1965	Visit to Union Junior College to confer with Dr. Kenneth C. McKay and Dr. Kenneth W. Iversen, Dean of Administration.
Nov. 29, 1965	Visit to Newark College of Engineering to confer with William Hazell, Dean and Vice President.
Nov. 29, 1965	Visit to Essex County Public Works Building. Conference with Frank M. Cummins, Assistant County Engineer and staff. Inspection tour of sites.
Nov. 30, 1965	Visit to Rutgers University to confer with Mr. Lowell Doak, Controller.
Dec. 2, 1965	Conference with Dr. Frank B. Stover, Superintendent of Schools, Bloomfield.
Dec. 6, 1965	Meeting of the Committee, Fidelity Union Trust Co., Newark.

Dec. 7, 1965	Tour of Newark sites.
Dec. 7, 1965	Conference with Dr. Robert Seitzer, Superintendent of Schools and Dr. George Hayward, Assistant Superintendent of Schools, East Orange.
Dec. 14, 1965	Conference with Reverend Monsignor Joseph P. Tuite, PhD., Superintendent of Schools, Archdiocese of Newark.
Dec. 15, 1965	Conference with Dr. David E. Weingast, Assistant Superintendent Schools, Newark.
Dec. 21, 1965	Conference with Dr. Donald Campbell, Director of Research, Newark Board of Education.
Dec. 22, 1965	Conference with Dr. William S. Twichell, Superintendent of Schools, Essex County.
Dec. 27, 1965	Conference with Mr. Louis Danzig, Executive Director, Newark Housing Authority.
Dec. 29, 1965	Conference with Dr. George W. Morgenroth, Director, Essex County Vocational and Technical Schools.
Dec. 30, 1965	Visit to Isotopes, Inc., Westwood, N. J., to confer with H. A. Seebald, on data processing services.
Jan. 4, 1966	Meeting with the Essex County Parent Teachers Council.
Jan. 6, 1966	Tour of Essex County Vocational Schools with Dr. George W. Morgenroth, Director.
Jan. 10, 1966	Meeting of the Committee, Fidelity Union Trust Co., Newark.
Jan. 11, 1966	Meeting with the District Chairmen of the County Parent Teacher organizations, Bambergers, Newark.
Jan. 12, 1966	Visit to Middlesex Community College to confer with Dr. Frank Chambers, President.
Jan. 28, 1966	Briefing of PTA questionnaire workers, Bambergers, Newark.
Feb. 1, 1966	Conference with Mr. James Taylor, Secretary to the Essex County Park Commission, Newark.
Feb. 2, 1966	Visit to Trenton, to confer with Dr. Cleve Westby, Chief of the Building Division and Dr. Edward J. Bambach, Director of Finance Planning, State Department of Education.
Feb. 4, 1966	Meeting of the Committee, Fidelity Union Trust Co., Newark.

Correspondence

Correspondence with the following individuals and agencies is in the files of the Committee.

D. Grant Morrison, Specialist, Community and Junior Colleges, College Program Support Branch, U. S. Dept. of Health, Education, and Welfare.

Edward J. Bambach, Director, Finance Planning on Higher Education, State Department of Education, Trenton, N. J.

F. Taylor Jones, Executive Secretary, Commission on Institutions of Higher Education, Middle States Association of Colleges and Secondary Schools, New New York City.

Andrew S. Moreland, President, Ocean County College, Toms River, N. J.

Leslie Blau Company, Realtors, Newark, N. J.

Mountain Coaches, Inc., East Orange, N. J.

Elite Plumbing Supply Corp. of New Jersey, South Amboy, N. J.

Camden Lime Co., Camden, N. J.

Mrs. Anthony G. Dower, West Orange, N. J.

Mr. Wilfred Saint, Jr., Bloomsburg State College, Bloomsburg, Pa.

Marsh & McLennan of New Jersey, Inc., Westfield, N. J.

Isotopes, Inc., Westwood, N. J.

Dr. Clarence N. Weems, Nutley, N. J.

F. H. Taylor Co., Realtors, East Orange, N. J.

J. I. Kislak, Inc., Realtors, Newark, N. J.

APPENDIX F

FINANCIAL STATEMENT

Total Amount Budgeted:	$ 10080.00
Expended or Committed to 3/1/66	7123.80
Balance	$ 2956.20

Note: Above figures do not include furniture and typewriter which were supplied by County but which were not a part of planned expenditures.

FINAL REPORT OF THE COUNTY COLLEGE COST FACT-FINDING COMMITTEE OF THE ESSEX COUNTY BOARD OF FREEHOLDERS

■

MAY 24, 1966

■

PREPARED AND SUBMITTED
BY THE COMMITTEE:

C. MALCOLM DAVIS, Chairman
MRS. REYNOLD E. BURCH
FRED LANDOLPHI
HARRY LATIMER
ALFRED C. LINKLETTER

ROBERT H. SPOHN, Consultant

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I. INTRODUCTION

PURPOSE OF THE REPORT

This is the Final Report of the Cost Fact-Finding Committee, appointed August 26, 1965, by resolution of the Board of Chosen Freeholders of Essex County, to obtain all necessary data relative to the cost of establishing an Essex County College. The reader should also refer to the earlier Interim Report Of The County College Cost Fact-Finding Committee of the Essex County Board of Freeholders, April 1, 1966, to which this report is a sequel.

In the Interim Report (so referred to hereafter) it was stated that a Community College to serve Essex County should be designed to accommodate 4000 students by 1972 and should be constructed in two phases at a total cost of approximately $20,000,000. The basis for the estimates of enrollment and size were forecasts made by earlier investigators (County Study Commission Report of June, 1964; Report of The New Jersey State Commissioner of Education, February, 1965), opinions of educators, and the experience of other communities of equivalent population. Also, the cost was made contingent upon the ultimate distribution of the student body among high-cost technological programs and lower-cost academic programs. It was pointed out that the Committee was securing firmer data, by means of a Questionnaire to Parents, on which to base size and cost estimates. The principal purpose of this report is to summarize the questionnaire returns, now received and fully analyzed, and to point out any adjustments that should be made in the Interim Report proposals in the light of this analysis.

A second purpose is to discuss several topics not covered fully in the Interim Report, such as the need for additional County College legislation: other sources of enrollment, including returning GI's; foundations as sources of revenue; etc.

THE QUESTIONNAIRE

Stratification

In Appendix A will be found a reproduction of the Questionnaire to Parents. The content, phrasing, and order of questions were carefully chosen to elicit the maximum amount of information. Three levels of stratification were established- regional, student achievement and socio-economic (indicated by the level of the parent's schooling). The parent was assigned to the proper level of the latter two by Questions 2 and 3, respectively. A region-school number code was employed for assignment to region. The three strata and their levels are given in Table 1. Parental intent as to the higher education of his child was related to these strata and levels throughout the questionnaire analysis.

TABLE 1. STRATIFICATION OF HIGH SCHOOLS SAMPLED

a. REGION

CORE SCHOOLS

Newark East Side
Newark West Side
Newark South Side
Newark Central
Newark Weequahic
Newark Barringer
Newark Arts
Newark Vailsburg
Essex Catholic
Good Counsel
St. Benedict Prep.
St. James
St. Vincent Academy
Irvington
East Orange
Clifford Scott
Orange
Archbishop Walsh
East Orange Catholic
Our Lady of the Valley

RING SCHOOLS

Belleville
Bloomfield
Glen Ridge
Columbia
Montclair
Nutley
Verona
West Orange
Mountain
Immaculate Conception
Lacordaire
Marylawn (Orange)
Seton Hall Preparatory

SUBURB SCHOOLS

Caldwell
Cedar Grove
Livingston
Millburn
West Essex
Mt. St. Dominic Academy

VOCATIONAL SCHOOLS

Newark (Boys)
Irvington (Boys)
Bloomfield (Boys)
Newark (Girls)

b. PARENT SCHOOLING LEVEL (SOCIO-ECONOMIC INDICATOR)

(Highest Level Attained)

No Schooling

Grade School

Some high school work

High school graduate

Two years or more of college

c. STUDENT ACHIEVEMENT LEVEL

(Average record to date)

A or excellent

B or good

C or average

D or below average

Distribution and Processing

The questionnaires were addressed and mailed from every high school of the County, public and parochial, to a random sampling of one of every four parents of eleventh-graders. The randomness was guaranteed by choosing every fourth name from an alphabetical listing of this student group. The parent was given one week to complete the questionnaire, after which he was asked to place it in a sealed envelope to be hand-carried by his child to his teacher. The school then packaged and mailed all of the returned questionnaires to the County College Committee office. A tabulation was made at the office of the number and percentage returned and schools were asked to urge delinquent parents to respond promptly. The procedure, the Committee believes, yielded maximum returns at minimum cost.

After all questionnaires returned were received at the Committee office, they were turned over to Isotopes, Inc., a Westwood, N. J., firm, for card punching and data processing on an IBM 7094 electronic computer according to a program that had been prepared earlier. The computations which the programmer was asked to make are given in Appendix B. The program and data cards are on file in this Committee's office together with printouts of the raw data.

Returns

The volume of returned questionnaires, and the care and completeness with which they were filled out by the parent, bespeaks the wide interest in a County College and supports the validity of the survey. Table 2. summarizes the returns by region, stratum, and public/parochial/vocational type of institution. It is of considerable significance that the overall high 63% level of returns was nearly uniform throughout the County, with only five schools falling below 40% and no region falling below 50%. Thus, the returns must be viewed as a true sampling of County opinion at the educational level of the survey.

It is also worth noting that the distribution of returns by achievement level, because of its "bell-curve effect", skewed somewhat toward the higher grades (a natural result from the eleventh-year group, many of the less able students having dropped out or behind), further confirms the validity of the sample. Still another point of interest is that the percentage returns from parochial and vocational schools both exceeded the overall percentage return, ensuring a convincing demonstration of opinion from these segments of the population.

TIME PROJECTION OF ENROLLMENT

It has been assumed throughout the Committee's investigation that the opinion of the eleventh-grade parent is useful in forecasting not only the enrollments which would arise from his student group but also those that would eventuate in future years. This appears to be true for two reasons: 1) The problem of the educational future of the child probably receives most attention when he is in the eleventh-grade 2) Since school enrollments are constantly increasing in this area along with increasing population, a forecast of enrollment in the initial class of the College must be regarded as a base enrollment which can only expand. Therefore, it was felt unnecessary to examine extensively the oncoming school population in order to detect small variations in rate of growth which could have no marked effect on the cost of development or operation of a County College.

TABLE 2. SUMMARY OF QUESTIONNAIRE RETURNS

a. CUMULATIVE RETURNS

School Group	Eleventh Grade Enrollment	Questionnaires Mailed	Percent of All Mailed	Questionnaires Received	Percent of All Received	Percent Received of all Mailed
Grand Total All Schools	12009	3018	100.00	1906	100.00	63.15
Grand Total Public	10214	2444	80.98	1501	78.75	61.42
Grand Total Parochial	1795	454	15.04	319	16.74	70.26
Newark Public	3170	796	26.38	452	23.71	56.78
Newark Parochial	884	223	7.39	140	7.35	62.78
Newark Total	4054	1019	33.78	592	31.06	58.10
Core Public	4670	1172	38.83	681	35.73	58.10
Core Parochial	1365	344	11.40	238	12.49	69.19
Core Total	6035	1516	50.23	919	48.22	60.62
Ring Public	3542	888	29.42	549	28.80	61.82
Ring Parochial	341	87	2.88	59	3.10	67.82
Ring Total	3883	975	32.30	608	31.90	62.36
Suburb Public	1529	384	12.72	271	14.22	70.57
Suburb Parochial	89	23	0.76	22	1.15	95.65
Suburb Total	1618	407	13.49	293	15.37	71.99
Newark Vocational	246	62	2.54	41	2.15	66.13
Irvington Vocational	102	26	0.86	14	0.73	53.85
Bloomfield Vocational	125	32	1.06	31	1.63	96.88
Vocational Total	473	120	3.98	86	4.51	71.67

b. RETURNS BY SCHOOL

School	Code Used	Eleventh Grade Enrollment	Questionnaires Mailed	Questionnaires Received	Percent Return
Core					
Newark East Side	(10)	418	105	53	50.48
Newark West Side	(11)	388	97	18	18.56
Newark South Side	(12)	429	108	84	77.78
Newark Central	(13)	358	90	44	48.89
Newark Weequahic	(14)	510	128	98	76.56
Newark Barringer	(15)	602	151	66	43.71
Newark Arts	(16)	179	45	30	40.00
Newark Vailsburg	(17)	286	72	59	81.94
Essex Catholic	(20)	422	106	58	54.72
Good Counsel	(21)	155	39	34	87.18
St. Benedict Prep.	(22)	168	42	20	47.60
St. James	(23)	42	13	13	100.00
St. Vincent Academy	(24)	97	25	16	64.00
Irvington	(30)	619	155	145	93.55
East Orange	(31)	468	117	36	30.77
Clifford Scott	(32)	180	45	21	46.67
Orange	(33)	233	59	26	44.07
Archbishop Walsh	(40)	107	27	23	85.19
East Orange Catholic	(41)	227	57	49	85.96
Our Lady of the Valley	(42)	147	37	26	70.27

b. RETURNS BY SCHOOL (cont'd)

School	Code Used	Eleventh Grade Enrollment	Questionnaires Mailed	Questionnaires Received	Percent Return
Ring					
Belleville	(50)	368	92	78	84.78
Bloomfield	(51)	587	147	143	97.28
Glen Ridge	(52)	134	34	10	29.41
Columbia	(53)	691	173	79	45.60
Montclair	(54)	514	129	55	42.64
Nutley	(55)	448	112	57	50.89
Verona	(56)	211	53	41	77.36
West Orange	(57)	342	86	38	44.19
Mountain	(58)	247	62	47	75.81
Immaculate Conception	(60)	73	23	23	100.00
Lacordaire	(61)	51	13	12	92.31
Marylawn	(62)	46	12	10	83.33
Seton Hall Preparatory	(63)	171	43	14	32.56
Suburb					
Caldwell	(70)	285	72	52	72.22
Cedar Grove	(71)	176	44	15	34.09
Livingston	(72)	489	123	92	74.80
Millburn	(73)	360	90	82	91.11
West Essex	(74)	219	55	28	50.91
Mt. St. Dominic	(80)	89	23	22	95.70
Vocational					
Newark Vocational(Boys)	(90)	135	34	19	55.88
Irvington Vocational	(91)	102	26	14	53.80
Bloomfield Vocational	(92)	125	32	31	96.80
Newark Vocational(Girls)	(93)	111	28	22	78.70

II. PRINCIPAL FINDINGS AND RECOMMENDATIONS

A. FINDINGS

STRENGTH OF SENTIMENT FOR A COUNTY COLLEGE

There is an extremely strong sentiment among Essex County parents of eleventh-grade students for the establishment of a County College. This sentiment prevails in all sections of the County and among all strata surveyed. Ninety-five percent (95%) of all parents responding stated that they were in favor of establishing a Community College, whether or not their own child would attend. Sixty-three percent of all parents responding, including many who are presently planning to send their sons and daughters to a four-year college, stated that they would "urge" their children to attend an Essex County Community College. The predominant reason given is clearly the expectation that the cost of the child's higher education, whether he terminates in two years or transfers later to a four-year institution, will be much lower than if he were to attend another school. A strong secondary reason is the opportunity to enroll in two-year technological programs, not generally available at other schools.

In addition to the strong desire for a College to serve the youth of the County, there is also a very sizeable interest on the part of parents in continuing education for themselves. Thirty-eight percent (38%) of all parents responding "would consider" enrolling in the Community College and indicated the curricula they would select.

DISTRIBUTION OF DEMAND FOR A COUNTY COLLEGE

Figures 1 through 6 illustrate the distribution of demand for a County College among the various strata sampled. Figures 1, 2, and 3 depict the demand by region, parent schooling level, and student achievement level, respectively, by giving the percentage of parents responding from these strata who would urge their children to attend a County College. Distinction is made between those having no present plan to send their child to any college (25.39% of the total responding) and those currently expecting to send their child to a four-year institution (56.03% of the total responding). The regional effect is clear, a decreasing percentage of "no planners" being encountered as one moves out from urban Newark. The percentage of parents, however, who would "urge" the County College is not significantly sensitive to region and is found to be high in all geographical areas.

The parent schooling effect is also predictable (Figure 2), those parents having more education leading those with lesser education in college planning for their children. Again the percentage urging the County College remains high across all levels. Student achievement level (Figure 3), as might be expected, is a hallmark of the college-planning group. It is worth observing that about as many of the C-group, or average students, have parents with plans as those who do not. It is clear from this and other data exhibited later that the C-group offers a promising reservoir of enrollees for the County College.

Figures 4, 5, and 6, are derived from the same data on which Figures 1, 2, and 3 were based, but the results are presented in a somewhat different light. Shown are the percentage of parents falling in each stratum, assuming the total number of parents to be equivalent to 100%. The profiles at the left invite comparison among the categories of Questionnaires

FIG. 1. PERCENTAGE OF ELEVENTH–GRADE SAMPLE IN EACH REGION WITH OR WITHOUT COLLEGE PLANS AND PERCENTAGE IN REGION WHICH WOULD URGE CHILD TO ATTEND A COUNTY COLLEGE

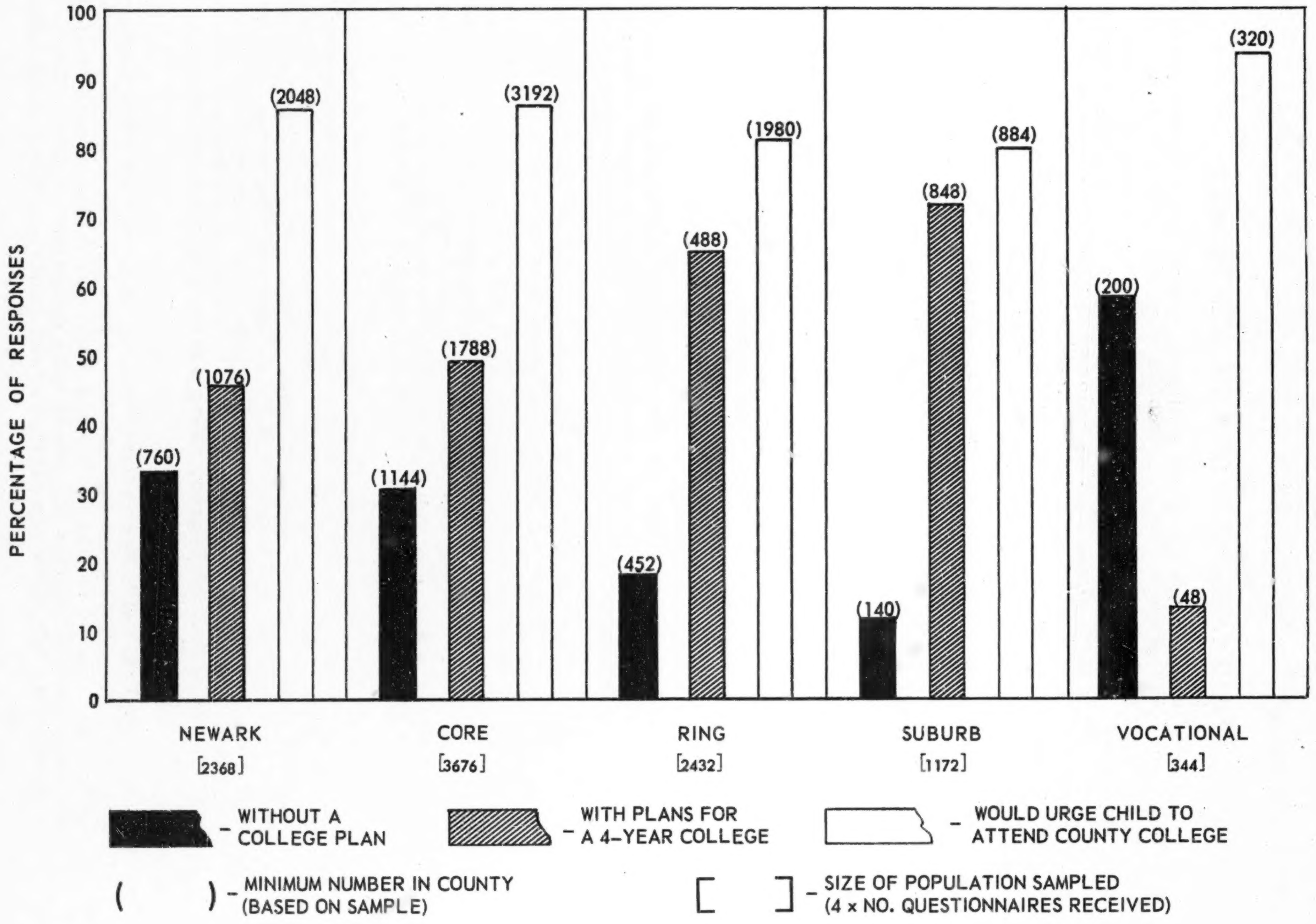


FIG. 2. PERCENTAGE OF ELEVENTH-GRADE SAMPLE IN EACH PARENT SCHOOLING LEVEL WITH OR WITHOUT COLLEGE PLANS AND PERCENTAGE IN LEVEL WHICH WOULD URGE CHILD TO ATTEND A COUNTY COLLEGE.

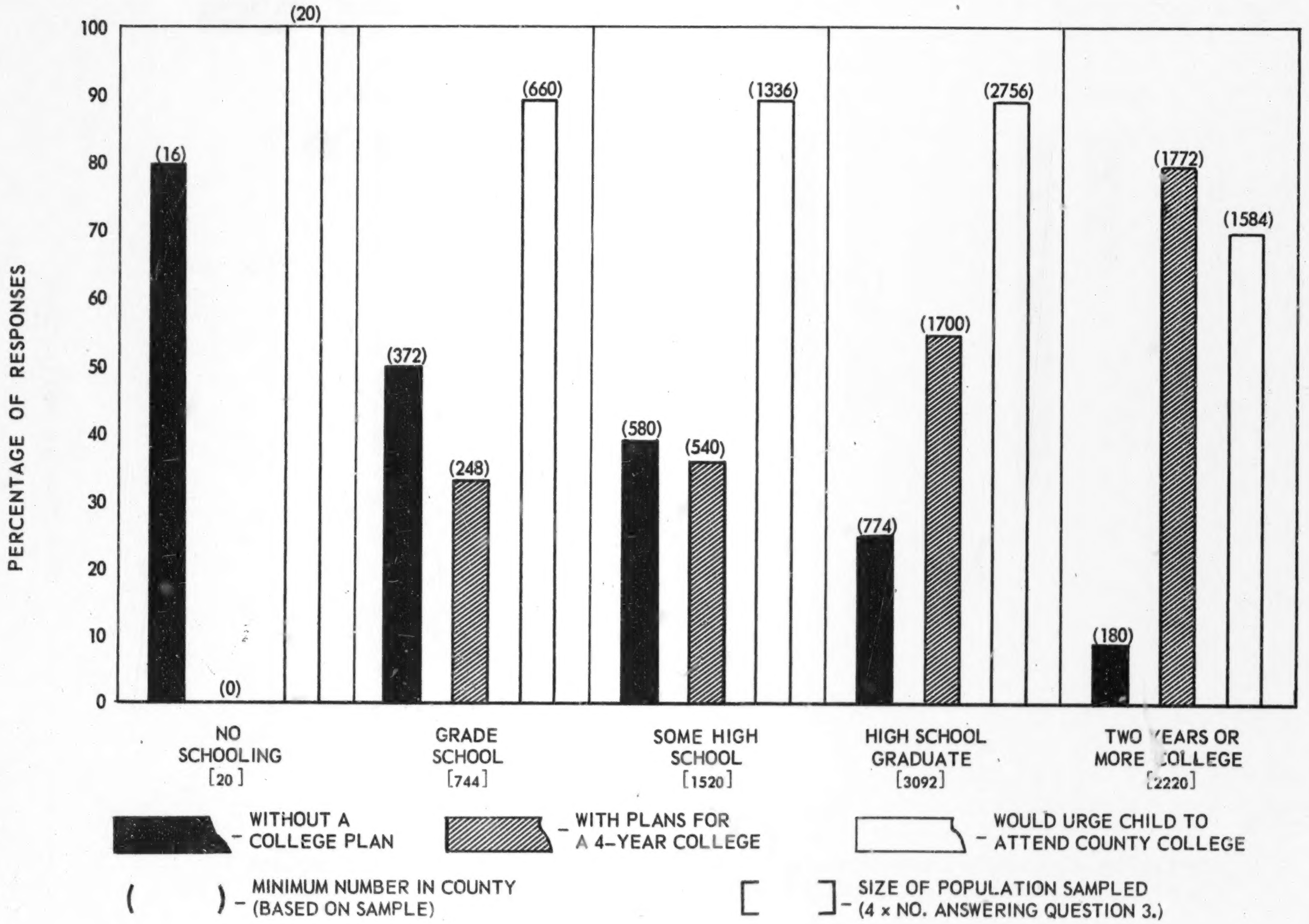


FIG. 3. PERCENTAGE OF ELEVENTH-GRADE SAMPLE IN EACH STUDENT ACHIEVEMENT LEVEL WITH OR WITHOUT COLLEGE PLANS AND PERCENTAGE IN LEVEL WHICH WOULD URGE CHILD TO ATTEND A COUNTY COLLEGE.

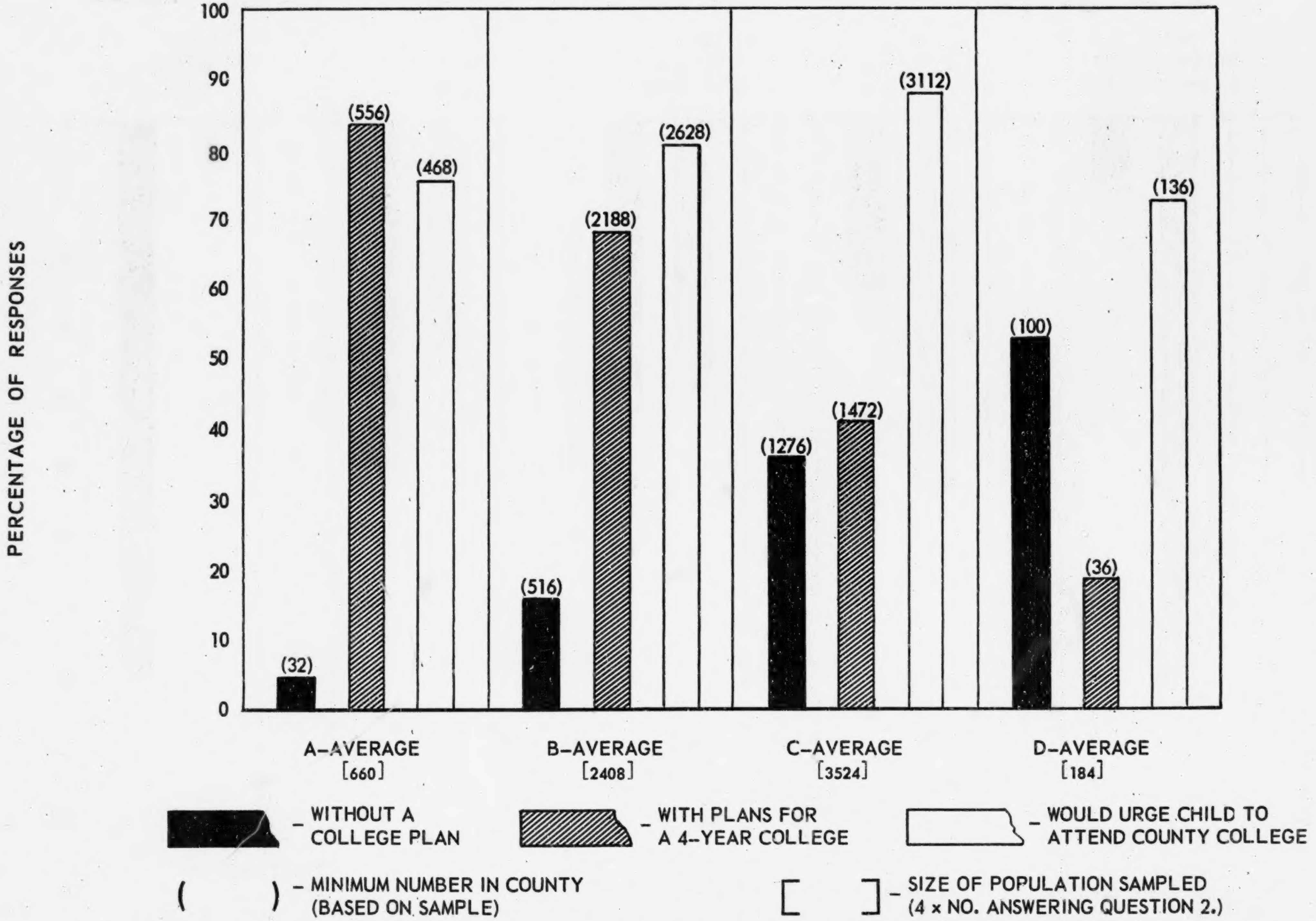
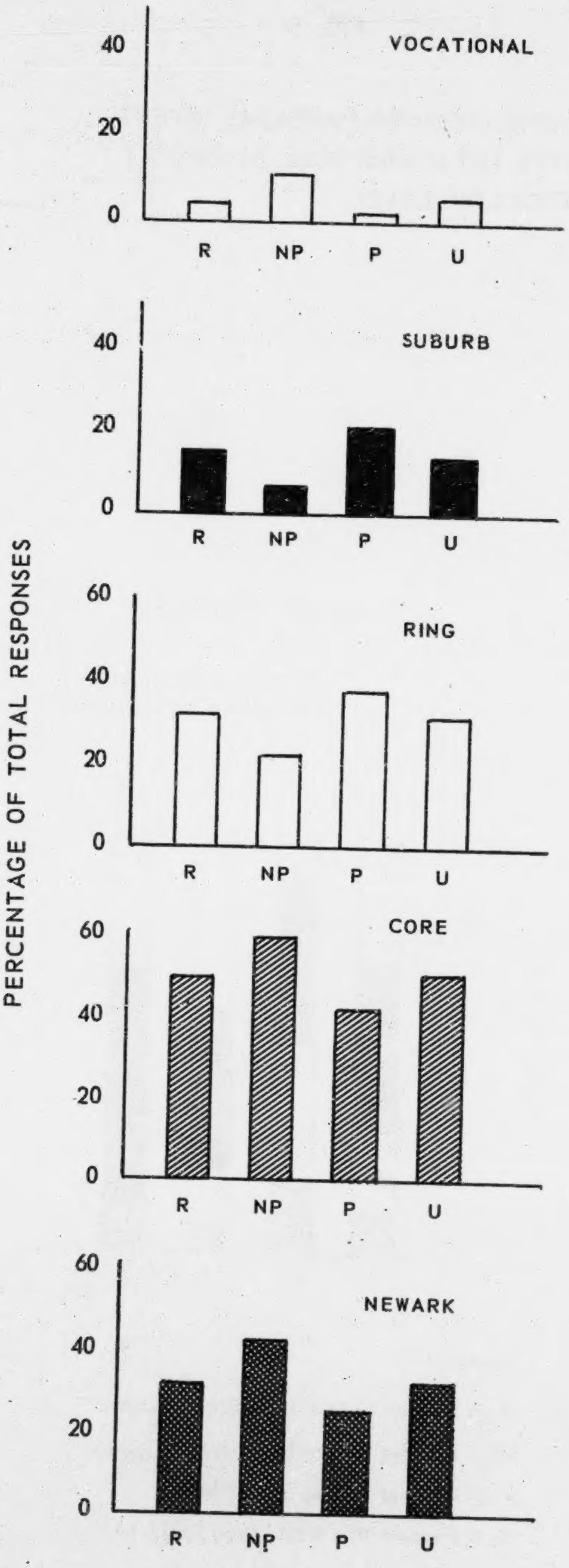


FIG. 4

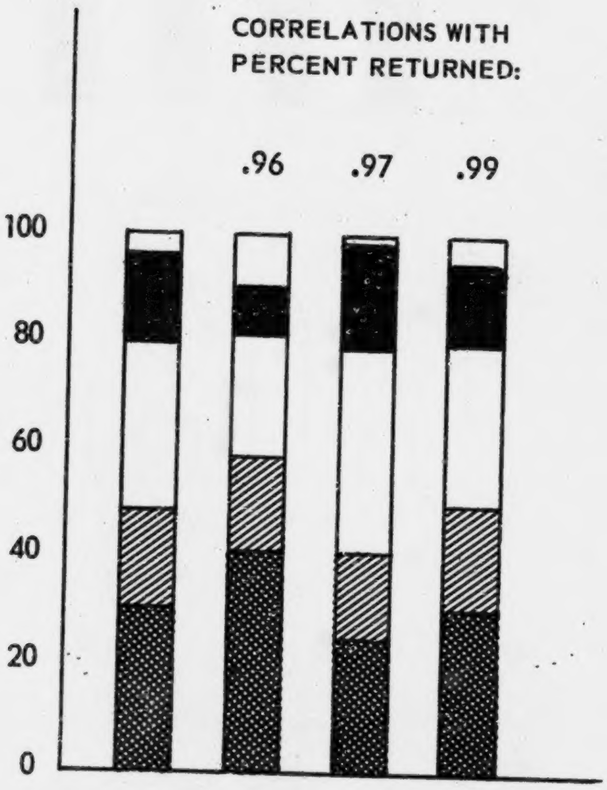
DISTRIBUTION OF PARENTAL INTENT OVER TOTAL RESPONSE, BY REGION

PROFILES BY REGION



SUMMARY PROFILES

(NEWARK INCLUDED IN CORE)



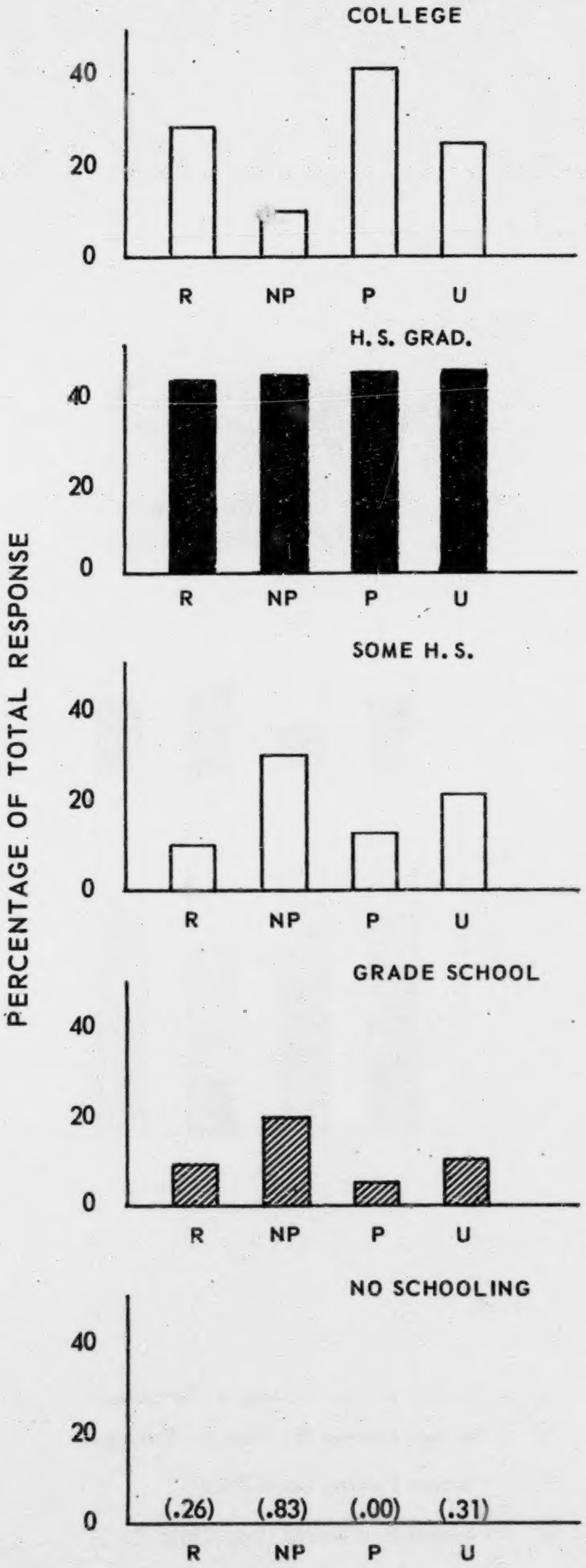
Legend:

R = Percent of Questionnaires Returned
NP = Percent Having No Plan for College
P = Percent Having Some Plan
U = Percent Who Would Urge Child To Attend County College.

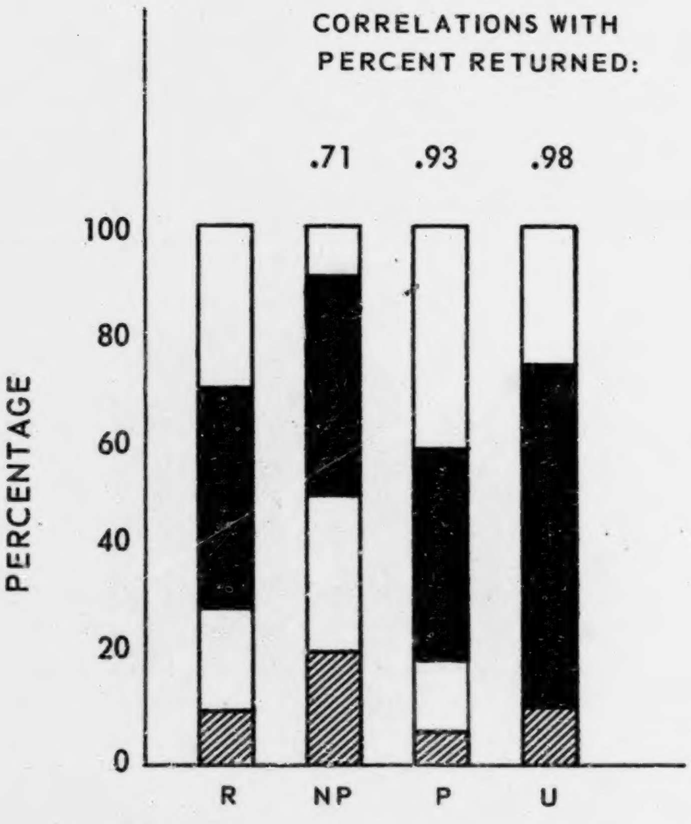
FIG. 5

DISTRIBUTION OF PARENTAL INTENT OVER TOTAL RESPONSE, BY PARENT SCHOOLING LEVEL.

PROFILES BY PARENT SCHOOLING LEVEL



SUMMARY PROFILES



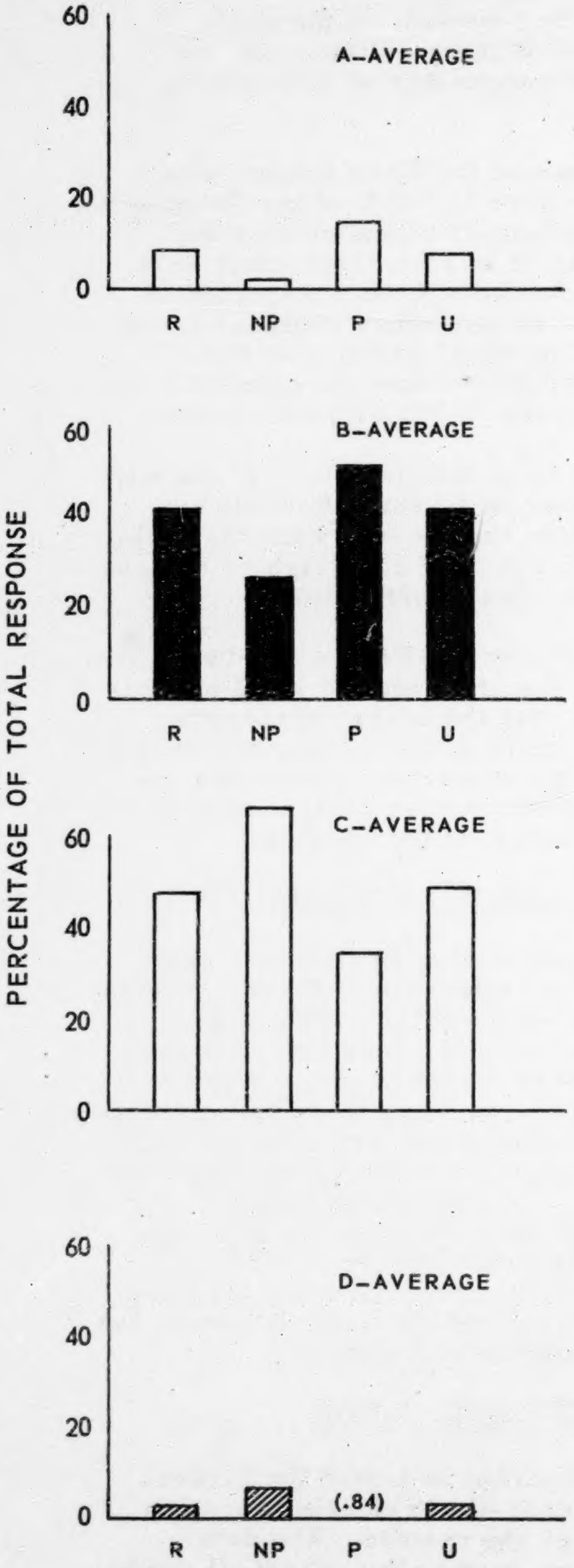
Legend:

R = Percent of Questionnaires Returned
NP = Percent Having No Plan For College
P = Percent Having Some Plan
U = Percent Who Would Urge Child To Attend County College.

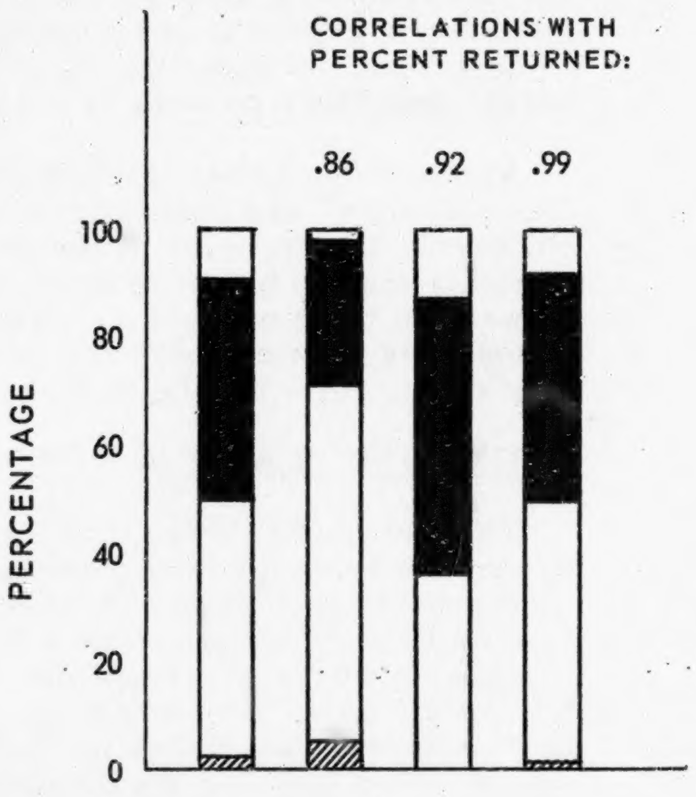
FIG. 6.

DISTRIBUTION OF PARENTAL INTENT OVER TOTAL RESPONSE, BY LEVEL OF STUDENT ACHIEVEMENT

PROFILES BY STUDENT LEVEL OF ACHIEVEMENT



SUMMARY PROFILES



Legend:

R = Percent of Questionnaires Returned

NP = Percent Having No Plan For College

P = Percent Having Some Plan

U = Percent Who Would Urge Child To Attend County College.

Returned, the No-Plan Group, the Plan Group, and the Urgers. The summary profiles to the right depict the relationship of the percentage breakdowns among regions (Figure 4), parent schooling levels (Figure 5), and student achievement level (Figure 6).

Correlation coefficients (Pearson Product- Moment, on the scale -1 to + 1) give the degree of correspondence of the percentage of "no-planners", "planners",and "urgers" with the percentage of responders from the various strata.

For example, it is observable in Figure 4 that the Core Region which was the source of 48% of all responses accounted for 42% of the "planners" and 58% of the "no-planners". This result probably signifies that the Core Group is underplanning, especially when it is seen from other data that the distribution of student ability on the basis of grades reported is about the same for the Core students as that for any other regional group. This imbalance of educational intent of the "no-plan" group with their numbers relative to the population yields a slightly lower correlation (.96) than the correlation, for example, of the "urgers" (.99) with responders.

The lowest correlation found (Figure 5) was of the "no-plan" group with parent-schooling level (.71). Apparently, whether a parent himself has gone far in school is not an infallible indication that he will want his child to do so; or, perhaps, the fact that children frequently are brighter or less bright than their parents is evidenced by this lower correlation.

Another somewhat low correlation (.86) is noted in Figure 6 between the "no-planners" and responders, stratified by the achievement level of their children. Examination of the profiles shows that the higher performing students tend to be more favored by their parents in the making of college plans than their number relative to the population warrants, whereas the opposite is true of the lower-performing students whose aspirations, if they exist, appear to be in many cases discounted by the parents.

THE GROUP PLANNING FOR A 4-YEAR COLLEGE PROGRAM

The Committee was quite interested in determining how large a group of parents were already planning to send their children to a 4-year college; what amonnt they expected to spend; and how many of them would consider having their children attend a County College for two years before transferring to a 4-year institution. Those with such a plan turned out to be 56% of all parents responding. In Figure 7 (a) they are grouped percentage-wise into four categories by the maximum amounts they are planning to spend. Also given is the percentage of each group who indicated (Question 5) that they would consider a County College, i.e., would reconsider their present plan, at least to the extent of sending their children the first two years to the County College. Naturally, those who are able to, and are expecting to spend large sums for their children's education are less interested in a County College than those in more modest circumstances; but even 40% of the former group apparently would be interested.

ABILITY OF PARENT TO MEET COUNTY COLLEGE COSTS

Question 6 of the Questionnaire asked the parent to select the highest amount he would be able to pay for the total cost of his child's education at a County College. Figure 7 (b) summarizes the results. The data indicate that if the cost is not above $500 per year to the parent, it would

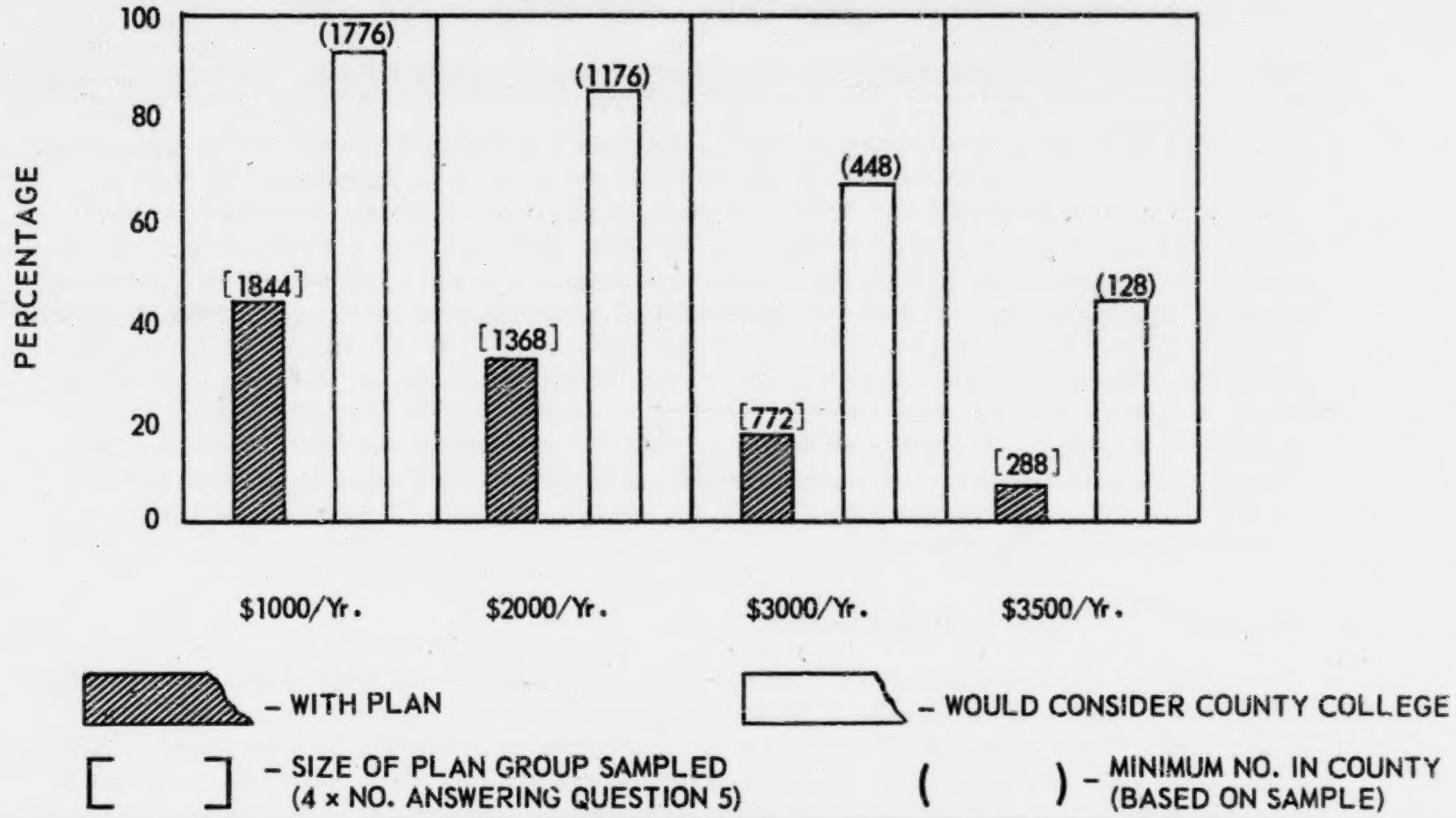


FIG. 7(a) PERCENTAGE OF ELEVENTH-GRADE SAMPLE WITH PLAN TO SEND CHILD TO A 4-YEAR COLLEGE AT VARIOUS LIMITING COSTS AND PERCENTAGE OF EACH GROUP WHICH WOULD CONSIDER A COUNTY COLLEGE.

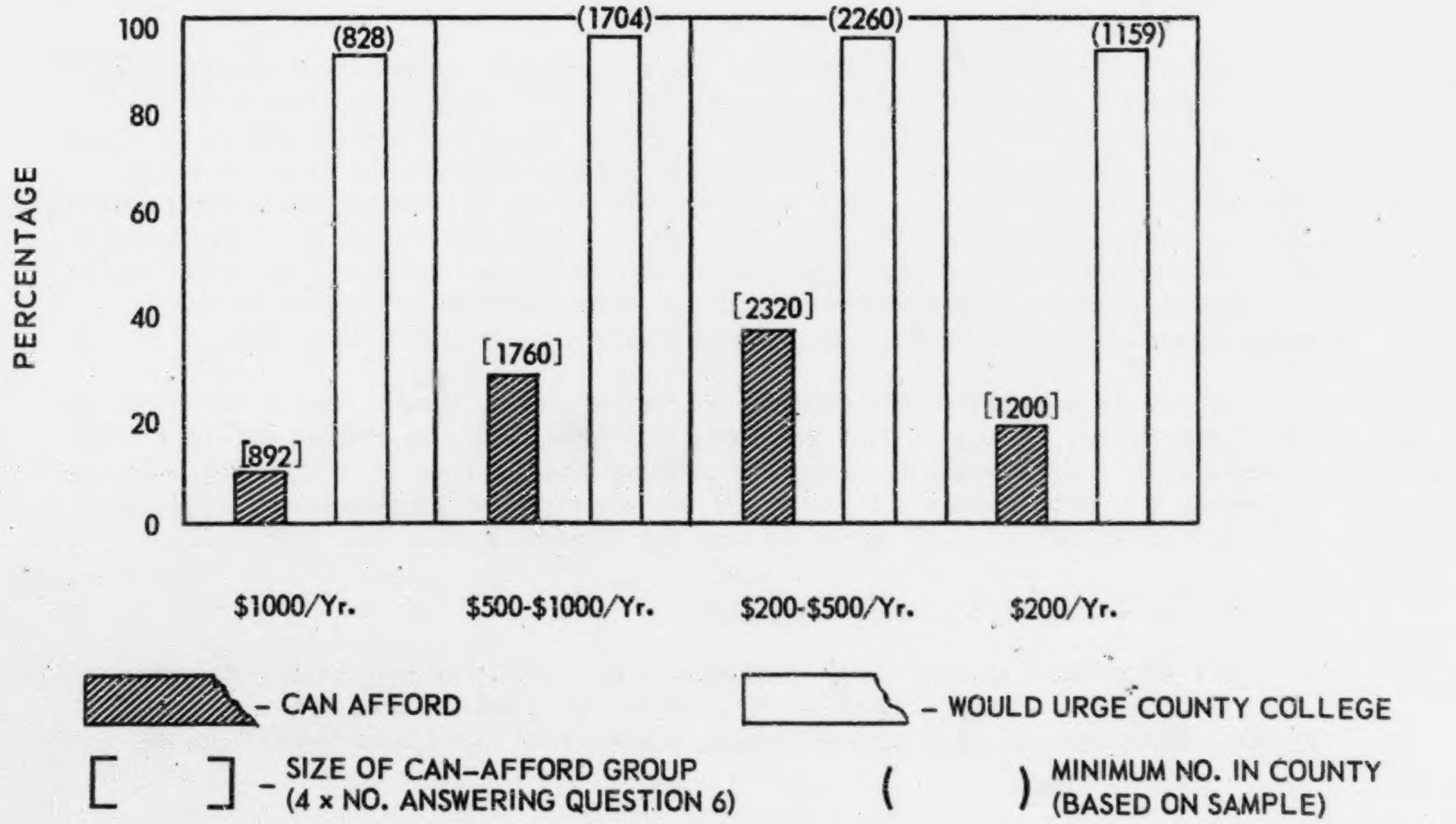


FIG. 7(b) PERCENTAGE OF ELEVENTH-GRADE SAMPLE WHICH CAN AFFORD VARIOUS COLLEGE COSTS AND PERCENTAGE OF EACH GROUP WHICH WOULD URGE CHILD TO ATTEND A COUNTY COLLEGE.

be within range of all but the 20% of the parents who couldn't afford more than $200. This suggests exploring the feasibility of scholarship aid for those students whose families are demonstrably in the $200 limit group (see Recommendation 6b, page 22).

THE GROUP NOT PLANNING TO SEND THEIR CHILDREN TO COLLEGE

About 25% of all parents responding had no plans to send their children to any college. Question 4 of the Questionnaire was designed to learn what the reasons were for this decision and to determine whether any of these parents would reconsider if a County College were available at modest cost. In Figure 8 is given the result of this analysis, including the percentages of each "no-plan" reason group that would urge their children to attend a County College despite their present lack of a college plan. It is significant that those giving "Can't Afford" as their reason for having "no-plan" predominated (28%), and that 94% of this group would be interested in a low-cost college. County-wide, this may be as many as 500 students per class, a number which, if measured in additional life earnings and better living by virtue of advanced education, certainly would appear to make a County College worthwhile.

TYPE OF PROGRAMS FAVORED

A major classification of students is into the group who wish to transfer from the County College to a higher institution after two years and the group who wish to pursue a two-year terminal career-type program. The response to Question 12 of the Questionnaire shows that, of 1662 making a choice, 64% or 1068 chose transfer programs, whereas 36% chose terminal programs. It is the belief of this Committee that lack of familiarity of many parents with the specific technologies listed as possible offerings, and ignorance of the many opportunities existing for employment of technicians trained at the sub-professional level, account for the lighter preference for the technological programs. The Committee believes that a County College should be designed to accommodate about equal proportions of transfer and terminal students.

Table 3 lists in order of choice the programs from which the parents were asked to select a preferred one for their child, and a preferred one for themselves in case they would expect to enroll in the Evening or Continuing Education Division. The major points of interest are the large demands for Secretarial, Nursing, and Drafting & Design programs among the terminal curricula, the former two undoubtedly being extremely popular among girl students. The relatively low interest in Computer Technology indicates an unawareness of the tremendous opportunities for employment today for the computer programmer and technician.

The most popular adult choice, Social Welfare Work, was a surprise to the Committee, since it was not realized how high the public interest was in this field, not known as a highly paying one. Also, it is remarkable that so many parents indicated interest in Computer Technology, while a similar interest was not evinced for the students.

PREFERENCE AS TO COMMUTING

Two questions in the Questionnaire dealt with the parents' desires in regard to commuting: Question 9. Would the student use a private car to commute or would he require public transportation? and Question 10.

FIG. 8. PERCENTAGE OF ELEVENTH-GRADE SAMPLE GIVING ANY OF VARIOUS REASONS FOR CHILD NOT PLANNING TO ENTER COLLEGE AND PERCENTAGE OF EACH GROUP WHICH WOULD URGE CHILD TO ATTEND A CCUNTY COLLEGE.

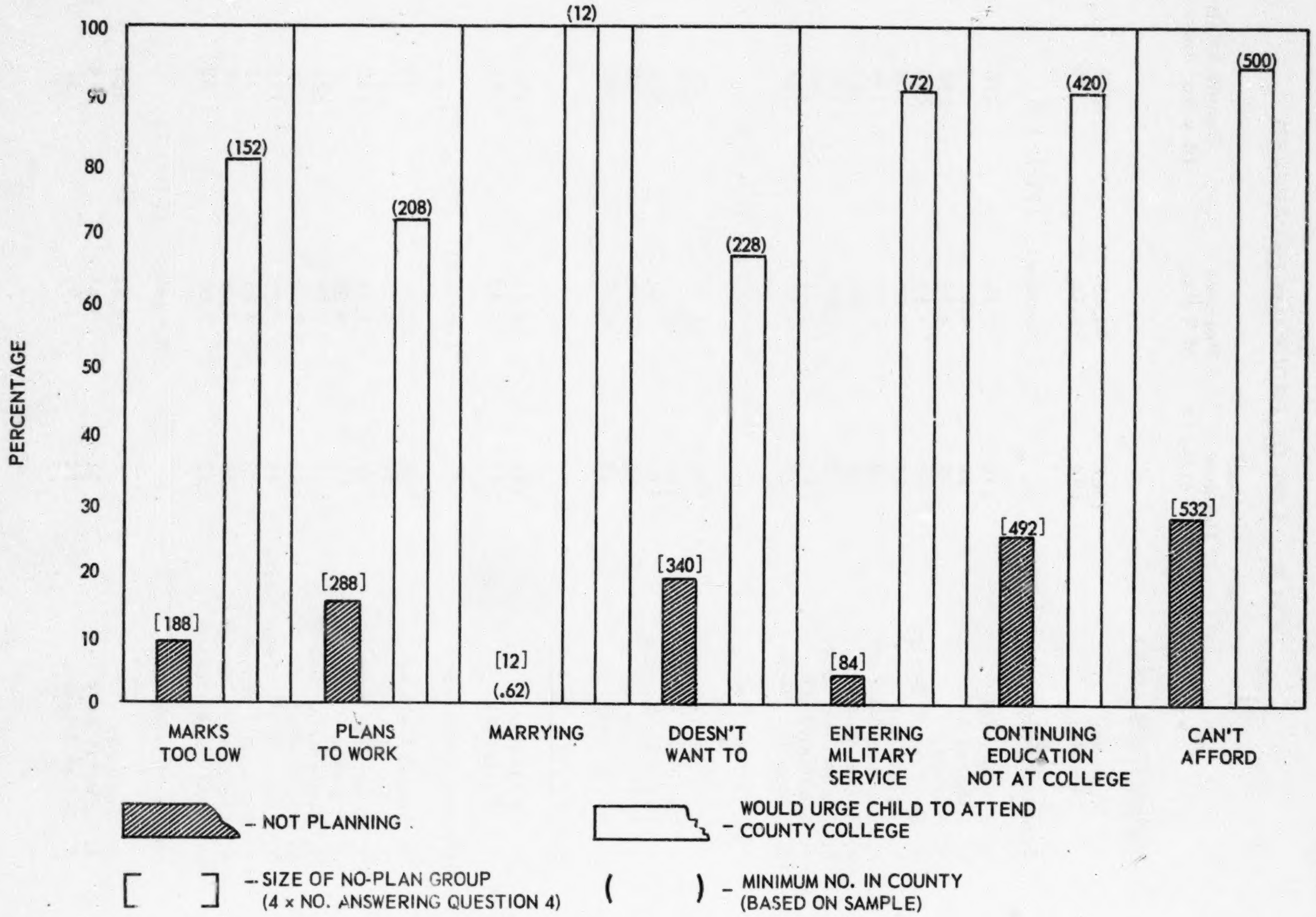


TABLE 3. LIST OF PROGRAMS PREFERRED

	Number Answering	Percent of Total	County Minimum (4 x No. Answering)
Student Preferences			
Transfer	1068	64.26	4272
Terminal	594	35.74	2376
Course Preference	-	Terminal	(First 10)
1. Secretarial	119	7.16	476
2. Liberal Arts	80	4.81	320
3. Nursing	73	4.39	292
4. Drafting & Design	60	3.61	240
5. Accounting	51	3.07	204
6. Mechanical Tech.	36	2.17	144
7. Social Welfare	32	1.92	128
8. Electrical Tech.	27	1.62	108
9. Medical Tech.	27	1.62	108
10. Computer Tech.	25	1.50	100
Course Preference	-	Transfer	(First 5)
1. Liberal Arts	544	32.73	2176
2. Business	188	11.31	752
3. Pre-Engineering	132	7.94	528
4. Nat. Science	125	7.52	500
5. Soc. Science	48	2.89	192
Adult Preferences			
Transfer	148	20.61	592
Terminal	570	79.39	2280
Course Preference	-	Terminal	(First 10)
1. Social Welfare	96	13.37	384
2. Liberal Arts	62	8.63	248
3. Computer Tech.	62	8.63	248
4. Nursing	58	8.08	232
5. Secretarial Science	56	7.80	224
6. Accounting	54	7.52	216
7. Marketing & Advertising	43	5.99	172
8. Banking & Insurance	33	4.61	132
9. Mechanical Techn	25	3.48	100
10. Drafting & Design	22	3.06	88
Course Preference	-	Transfer	(First 3)
1. Business	75	10.44	300
2. Liberal Arts	46	6.41	184
3. Social Science	14	1.95	56

What is the greatest commuting distance you would regard as reasonable? The results are summarized in Table 4. Since 62% of those responding would plan to use public transportation, it is clear that such transportation would have to be provided. These facilities, especially, would be required to carry the Newark students to school, 78% of whom would plan to use public transportation. It must be pointed out, however, that the average Newark student is willing to commute over five miles to the County College, others being willing to accept as much as six or seven miles. The "most-favored location" of the Interim Report (vicinity of Route No. 280/Prospect Ave. interchange in West Orange) is thus "within range" to most Newark families as well as to those in the central and outlying sections of the County.

An interesting computation was made to find what might be called a "center of preference" for the County. It assumed that the college should be situated at a distance from each high school which is shorter according to the number of students and longer according to the acceptable distance of travel. The computation of this point* produced a theoretically optimum location coinciding with the East Orange Station of the Lackawanna Railroad. No 50-acre site being available at this point, a compromise location is required, such as the location favored by the Committee in its Interim Report.

B. RECOMMENDATIONS

1. Every effort should be made to satisfy the exceptionally strong desire of County parents for a County College, within the capability of the County to meet the cost of such an institution. The facility proposed in the Interim Report for 4000 students (Case II), although apparently falling short of the need, should be constructed as a first step. Equal enrollments should be assumed in Technological and Non-Technological Programs. Every measure that can be taken should be taken to accelerate the development schedule so that the target enrollments may be achieved at the earliest date possible.

2. Tuition for the student should not exceed $300 per year in order that the total cost to the parent for sending his child to the County College be under $500 per year.

3. Entrance requirements should be set at a reasonably high level. The demand for enrollment will be so high that an "open door policy" is out of the question with the size of facility being planned. Also, it is conceivable that the demand for entrance would be so high as to permit peak enrollments to be reached by admitting only students of B-average or better. Should such a demand materialize, the Committee would not recommend excluding all students of C-average.

4. The Committee finds no reason to alter its recommendations of site in the Interim Report because of data obtained by questionnaire. However,

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*For the mathematician reader, the computation obtained the geographical coordinates of the "center of preference" as the orthogonal first moment arms of mass, where mass was made equal to p/d, p being the eleventh-grade enrollment of each school and d the mean acceptable commuting distance given in Table 4. No correction was made for deviation of the route of travel from a straight line.

TABLE 4. COMMUTING PREFERENCES

Region	Percent Preferring Private Trsp.	Percent Requiring Public Trsp.	Percent Accepting Few Blocks	Percent Accepting 2 Miles	Percent Accepting 5 Miles	Percent Accepting 10 Miles	Weighted Average Distance Acceptable
Grand Total All Schools	38.18	61.82	2.24	15.18	49.00	33.58	6.12
Newark	22.06	77.94	5.00	22.11	50.19	22.69	5.25
Core	25.38	74.62	4.04	20.68	51.77	23.50	5.37
Ring	48.31	51.69	0.77	11.05	46.90	41.28	6.70
Suburb	59.20	40.80	0.00	5.31	40.82	53.88	7.53
School							
Core		Number Answering					
Newark East Side		48	4.17	31.25	50.00	14.58	4.60
Newark West Side		17	17.65	29.41	41.18	11.76	3.91
Newark South Side		70	8.57	27.14	38.57	25.71	5.09
Newark Central		38	10.53	26.31	44.74	18.42	4.66
Newark Weequahic		87	1.15	20.69	52.87	25.29	5.59
Newark Barringer		59	10.17	22.03	47.46	20.34	4.90
Newark Arts		25	4.00	24.00	56.00	16.00	4.90
Newark Vailsburg		46	2.17	21.74	56.52	19.56	5.23
Essex Catholic		55	1.82	14.54	47.27	36.36	6.30
Good Counsel		31	3.22	16.13	67.74	12.90	5.02
St. Benedict Preparatory		18	0.	11.11	66.67	22.22	5.78
St. James		12	0.	8.33	50.00	41.67	6.83
St. Vincent Academy		14	0.	21.43	50.00	28.57	5.79
Irvington		130	2.31	19.23	56.15	22.31	6.20
East Orange		32	6.25	25.00	56.25	12.50	4.60
Clifford Scott		17	0.	29.41	41.18	29.41	5.59
Orange		25	8.00	16.00	48.00	28.00	5.56
Archbishop Walsh		20	0.	15.00	65.00	20.00	5.55
East Orange Catholic		47	0.	10.64	55.32	34.04	6.38
Our Lady of the Valley		26	0.	15.38	50.00	34.61	6.27

TABLE 4. COMMUTING PREFERENCES
(continued)

School	Number Answering	Percent Accepting Few Blocks	Percent Accepting 2 Miles	Percent Accepting 5 Miles	Percent Accepting 10 Miles	Weighted Average Distance Acceptable
Ring						
Belleville	69	1.45	10.14	49.27	39.13	6.59
Bloomfield	117	1.71	17.09	53.85	27.35	5.78
Glen Ridge	6	0.	00.	33.33	66.67	8.33
Columbia	63	0.	4.76	39.68	55.55	7.63
Montclair	48	0.	3.33	52.08	39.58	6.65
Nutley	49	0.	14.28	38.77	46.94	6.92
Verona	36	0.	0.	52.78	47.22	7.36
West Orange	35	0.	20.00	42.86	37.14	6.26
Mountain	37	0.	16.22	43.24	40.54	6.54
Immaculate Conception	22	0.	13.64	45.45	40.91	6.64
Lacordaire	10	0.	0.	30.00	70.00	8.50
Marylawn	10	0.	0.	50.00	50.00	7.58
Seton Hall	14	7.14	0.	42.86	50.00	7.18
Suburb						
Caldwell	47	0.	12.76	48.94	38.30	8.53
Cedar Grove	12	0.	0.	33.33	66.67	8.33
Livingston	80	0.	2.50	40.00	57.50	7.80
Millburn	62	0.	1.61	38.71	59.68	7.94
West Essex	24	0.	8.33	33.33	58.33	7.67
Mt. St. Dominic	20	0.	10.00	45.00	45.00	6.95
Vocational						
Newark Vocational (Boys)	16	0.	18.75	25.00	56.25	7.25
Irvington Vocational (Boys)	13	0.	15.38	61.54	23.08	6.92
Bloomfield Vocational (Boys)	26	0.	11.54	65.38	23.08	5.81
Newark Vocational (Girls)	20	0.	20.00	80.00	0.	4.40

it is mandatory that public transportation be made available to whatever site is chosen. Also, in view of the many students planning to take public transportation, a somewhat less extensive investment than budgeted in the Interim Report may be expected for parking-lot paving.

5. The Committee regards it as essential to provide the following programs as a minimum. Those asterisked may conceivably be postponed until the permanent facility opens.

Terminal	Transfer
Secretarial Science	Liberal Arts
Liberal Arts	Business
Nursing	Pre-Engineering
Drafting	Natural Sciences
Accounting	
Computer Technology	
*Electrical Technology	
*Mechanical Technology	
Social Welfare Work	

The following additional terminal programs should be offered on an experimental basis, as the opportunity arises, to test demand:

Marketing and Advertising
Banking and Insurance

The Committee has been advised of the feasibility of instituting a general program of Art Education which would provide basic training for the fine artist or commercial artist and which would not require extensive investment in space or materials. It recommends that such a program be instituted as a pilot program to aid in determining the need for a Fine and Performing Arts Center in the future.

6. The Committee has five recommendations as to other action needed:

a. Action at the State level to ensure the right of students with satisfactory records to transfer from County Community Colleges to any State College or University.

b. Action at the County level providing scholarship aid to students of County high schools who have outstanding scholastic records and whose parents cannot afford the cost of sending them to the County College.

c. Encouragement to the creation of a private foundation set up to receive gifts to the College (particularly those with conditions attached) from private and public donors.

d. Inducements to County industries to supply equipment or facilities manufactured or produced by such industries to the County College for instructional purposes. Such equipment or facilities may be received as gifts or may be acquired by negotiation including some consideration on the part of the County or the College.

e. State legislation to lift the current limitation of $200, the County's share of operating costs, to $600 as incorporated in the Tanzman bill now before the Senate.

III. DETAILED ANALYSIS OF FINDINGS

A. ENROLLMENT

In the Interim Report the enrollment of an Essex County College was projected for the period of 1967-1973 on the basis of data derived from earlier investigations. This projection is reproduced here (Figure 9) from the Interim Report. It anticipates a one-class enrollment growing to and stabilizing at 2000 full-time day students by 1973. The forecast of enrollment by questionnaire was intended to confirm or correct the above estimate. Below will be discussed a number of the factors that would affect the size of enrollment at a County College and an analysis of the probable impact of each as revealed by the Questionnaire. The discussion closes with a summary prediction of single - class enrollment, broken down into its components, which may then be compared with that given in Figure 9.

SIZE AND GROWTH OF HIGH SCHOOL CLASS ENROLLMENTS

The Questionnaire was employed principally to secure an estimate of the number of high school graduates each year, starting in 1967, who would be applying for admission to a County College. The eleventh-grade parent group was surveyed because their children would probably be the first to be offered admission. Also, it was felt that knowing the number seeking admission from the class of 1967, and knowing the size of that class and of incoming classes, one might with some confidence predict whether a facility planned for the 1967 group would continue to be filled to capacity in future years.

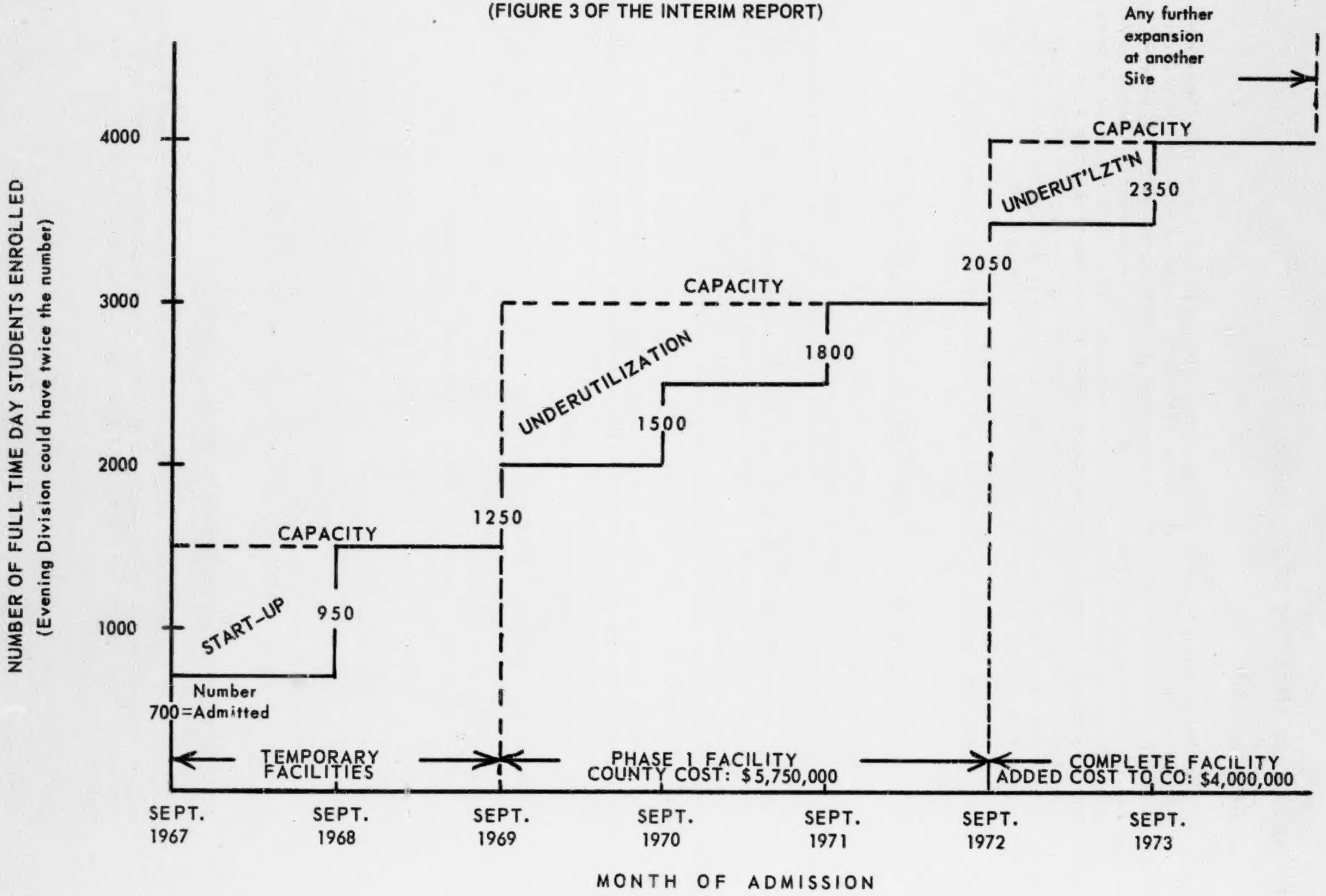
Looking first at current enrollments, the number of students in the eleventh-grade of public County high schools at the time the Questionnaire was issued was 10,214. The equivalent Parochial School enrollment was 1795, making a grand total of 12,009.

In Table 13, page 26, of the February 1965, State Report (Study of The Proposal To Establish and Operate A County College in Essex County), enrollments for Essex County Public Schools are projected through 1970-1971, using a "straight-line projection" method. Employing data on enrollments at the beginning of the current school year, and a somewhat more sophisticated forward interpolation technique (see Appendix C), the Committee made a new projection of eleventh-grade enrollments through 1970, with the results shown in Table 5. The gradual increase in enrollment is confirmed, leading to the conclusion that a school facility built to accommodate current enrollments will be filled to capacity at least through 1973, when the eleventh grade of 1970 would graduate. (It is assumed that the much smaller parochial school enrollments will show a similar increase.)

COMPOSITION OF POTENTIAL ENROLLMENT

Tables 6, 7 and 8 present the detailed data obtained from the Questionnaire summarizing the sentiment of the sample surveyed. They provide the numerical basis for Figures 1 through 6 in an earlier section and deserve careful study.

FIG. 9
PROJECTED ENROLLMENT AND ADMISSIONS, 1967-1973
ESSEX COUNTY COMMUNITY COLLEGE
(FIGURE 3 OF THE INTERIM REPORT)



(Nos. admitted assume 20% attrition of each class at end of first year.)

TABLE 5. PROJECTION OF ELEVENTH GRADE PUBLIC SCHOOL ENROLLMENTS

(Data for 1963-1965 from the office of The County Superintendent of Schools)

Grade	1963	1964	1965	1966	1967	1968	1969	1970
K	14,129	14,237	14,673					
1	14,451	14,740	14,593					
2	12,878	14,088	14,056					
3	12,266	12,720	13,827					
4	13,059	12,220	12,661					
5	12,174	12,729	12,126					
6	11,926	12,012	12,361					
7	11,855	12,010	12,062	(12,512)				
8	11,332	11,777	11,787	(11,855)	(12,248)			
9	12,265	12,571	12,981	(13,071)	(13,137)	(13,600)		
10	11,753	11,596	11,760	(12,183)	(12,230)	(12,297)	(12,718)	
11	11,124	10,491	10,279	(10,480)	(10,840)	(10,899)	(10,954)	(11,335)
12	9.874	10,764	9,970	-	-	-	-	-

(   ) - Interpolated Values

For formula, see Appendix C

Table 7 gives the estimated minimum and maximum numbers of parents in given strata who would urge their child to attend a County College. The minimum number is simply four times the number of responses actually received, since it may be presumed that, the sample being random and one in four, at least four times the number of responses actually received would be received countywide if all of the eleventh-grade parents had been surveyed, all had returned the questionnaires, and that such a complete return had broken down percentagewise just as the sample taken. This is obviously not a least upper bound on the numbers who would respond in a complete survey but, since no method seemed feasible or economical to sample those not replying, it is a reasonable upper limit.

Another word of warning must be given. The mere fact that the parent would urge his child to attend a County College is no guarantee that the child would actually enroll, nor even that he would seek to be admitted. This element of uncertainty has been taken account of later in this section in estimating the probable number of admissions.

The meaning of the correlation coefficients in Table 8 has already been explained (page 14). The formula for their derivation is given in Appendix D.

For further comment on the data of Tables 6, 7 and 8, the reader is referred to the discussion on page 7ff of the graphical presentation of the same data.

REASONS FOR PLANNING OR NOT PLANNING; ABILITY TO PAY; AND REASONS FOR URGING ATTENDANCE

The Questionnaire-elicited statistics in these areas are found in Tables 9, 10, 11, and 12:

Table 9. Note that almost half of the parents are not planning to pay more than $1000 per year for their child's education. This would eliminate most private colleges from consideration. As is predictable, the expenditure planned increases as one moves toward the suburbs, as the parent is better-educated, and as the student has more highly achieved.

Table 10. The "Can't Afford Group" predominate among those having no plan to send the child to College, a fact that suggests a considerable potential County College enrollment from this group. Note the number of A-Average and B-Average students in this category.

Table 11. Apparently 80% of the parents could afford to pay as much as $500 per year for their children's schooling at a County College. This, it must be remembered, is total cost, not simply tuition.

Table 12. This is a most significant Table. Note that the three reasons that are linked to cost---Can Live At Home, Cheaper, and Wants Transfer Program--- comprise 67% of the group who would urge their children to attend a County College. This is convincing evidence that the cost of higher education is becoming oppressive to many parents. It is also very significant that equally high percentages of these three reasons combined are found in all regions. This indicates that it is not only the urban regions but also the suburban regions that are cost-conscious. One must expect, therefore, a sizeable number of applications from the remoter areas of the County.

TABLE 6.

PERCENTAGE IN VARIOUS STRATA OF ELEVENTH-GRADE SAMPLE WITH NO PLANS FOR COLLEGE, PERCENTAGE WITH PLAN FOR A 4-YEAR COLLEGE, AND PERCENTAGE WHICH WOULD URGE CHILD TO ATTEND A COUNTY COLLEGE

STRATUM	RETURN			Percent With Plan	Percent Who Would Urge
REGION	Questionnaires Received	Percent of Total Received	Percent With No Plan	For 4-Year College	Child to Attend County College
NEWARK	592	31.06	33.61	45.44	86.49
CORE (incl. Newark)	919	48.22	31.12	48.64	86.83
RING	608	31.90	18.58	65.30	81.41
SUBURB	293	15.37	11.94	72.35	75.43
VOCATIONAL	86	4.51	58.14	13.95	93.02
TOTAL	1906	100.00	25.39	56.03	83.63
PARENT SCHOOLING LEVEL	No. Answering Question 3	Percent of Total Answering			
NO SCHOOLING	5	.26	80.00	.00	100.00
GRADE SCHOOL	186	9.79	50.00	33.33	88.71
SOME HIGH SCHOOL	380	20.01	38.16	35.53	87.89
HIGH SCHOOL GRAD.	773	40.71	25.10	54.98	89.13
TWO YEARS COLLEGE	555	29.23	8.11	79.82	71.35
TOTAL	1899	100.00	25.33	56.08	83.68
STUDENT ACHIEVEMENT LEVEL	No. Answering Question 2	Percent of Total Answering			
A - AVERAGE	165	8.71	4.85	84.24	70.91
B - AVERAGE	802	42.35	16.08	68.20	81.92
C - AVERAGE	881	46.51	36.21	41.77	88.31
D - AVERAGE	46	2.43	54.35	19.56	73.91
TOTAL	1894	100.00	25.40	56.12	83.74

TABLE 7.

NUMBER IN VARIOUS STRATA OF ELEVENTH-GRADE SAMPLE WITH NO PLANS FOR COLLEGE, NUMBER WITH PLAN FOR A 4-YEAR COLLEGE, AND NUMBER WHO WOULD URGE CHILD TO ATTEND A COUNTY COLLEGE

County Minimum = 4 x Sample No. Answering   County Maximum = Sample Pct. Answering x Total in County in Stratum

STRATUM		No Plan For College		Plan For A 4-Yr. College		Would Urge Child to Attend County College	
REGION	11th Grade Enrollment	County Minimum	County Maximum	County Minimum	County Maximum	County Minimum	County Maximum
NEWARK	4054	796	1362	1076	1842	2048	3506
CORE (incl. Newark)	6035	1144	1878	1788	2935	3192	5240
RING	3883	452	721	1488	2535	1980	3161
SUBURB	1618	140	193	848	1170	884	1220
VOCATIONAL	473	200	274	48	65	320	439
TOTAL	12009	1936	3066	4172	6705	6376	10060
PARENT SCHOOLING LEVEL	Total County						
NO SCHOOLING	30	16	24	0	0	20	30
GRADE SCHOOL	1172	372	586	248	391	680	1040
SOME HIGH SCHOOL	2394	580	914	540	857	1236	2104
HIGH SCHOOL GRAD.	4870	774	1222	1700	2678	2756	4341
TWO YEARS COLLEGE	3498	180	284	1772	2792	1584	2496
TOTAL	11964	1922	3030	4260	6718	6276	10011
STUDENT ACHIEVEMENT LEVEL	Total County						
A - AVERAGE	1039	32	50	556	875	468	737
B - AVERAGE	5053	516	813	2188	3454	2628	4138
C - AVERAGE	5550	1276	2010	1472	2318	3112	4901
D - AVERAGE	291	100	158	36	57	136	215
TOTAL	11933	1924	3031	4252	6704	6344	9992

TABLE 8.

PERCENT DISTRIBUTION OF PARENTAL INTENT OVER TOTAL RETURN BY REGION, PARENT SCHOOLING LEVEL, AND STUDENT ACHIEVEMENT LEVEL, WITH CORRELATIONS (PERFECT CORRELATION = + 1.0)

STRATUM	Percent of Total Mailed	Percent of Total Returned	Percent Distribution Over Total Return		
REGION			Percent of Total Having No Plan	Percent of Total Having 4-Year Plan	Percent of Total Urging County College
NEWARK	33.78	31.06	41.12	25.19	32.12
CORE (incl. Newark)	50.23	48.22	59.09	41.85	50.07
RING	32.30	31.90	23.35	37.17	31.05
SUBURB	13.49	15.37	7.23	19.86	13.86
VOCATIONAL	3.98	4.51	10.33	1.12	5.02
CORRELATION WITH PERCENT OF TOTAL RETURNED			+ .9586	+ .9731	+ .9978
PARENT SCHOOLING LEVEL					
NO SCHOOLING		0.26	0.83	0.00	0.31
GRADE SCHOOL		9.79	19.33	5.82	10.38
SOME HIGH SCHOOL		20.01	30.15	12.68	21.02
HIGH SCHOOL GRAD.		40.71	40.33	39.91	43.37
TWO YEARS COLLEGE		29.23	9.36	41.59	24.92
CORRELATION WITH PERCENT OF TOTAL RETURNED			+ .7064	+ .9325	+ .9859
STUDENT ACHIEVEMENT LEVEL					
A - AVERAGE		8.71	1.66	13.08	7.38
B - AVERAGE		42.34	26.82	51.46	41.42
C - AVERAGE		46.52	66.32	34.62	49.06
D - AVERAGE		2.43	5.20	.84	2.14
CORRELATION WITH PERCENT OF TOTAL RETURNED			+ .8653	+ .9200	+ .9987

TABLE 9.

PERCENTAGE IN VARIOUS STRATA OF ELEVENTH-GRADE SAMPLE HAVING PLAN TO ATTEND A 4-YEAR COLLEGE AT SELECTED LEVELS OF MAXIMUM ANTICIPATED COST

STRATUM	Sample Number Answering	Maximum Anticipated Cost			
		Pct. at $1000 Per year	Pct. at $2000 Per year	Pct. at $3000 Per year	Pct. at $3500 Per year
GRAND TOTAL	1068	43.17	32.02	18.07	6.74
REGION					
NEWARK	269	60.96	27.51	8.55	2.98
CORE (incl. Newark)	447	58.84	30.87	7.38	2.91
RING	397	36.02	32.75	21.91	9.32
SUBURB	212	21.23	33.96	34.43	10.38
VOCATIONAL	12	83.33	16.67	0.00	0.00
PARENT SCHOOLING LEVEL					
NO SCHOOL	0	0.00	0.00	0.00	0.00
GRADE SCHOOL	62	59.68	37.10	3.22	0.00
SOME HIGH SCHOOL	135	64.45	30.37	3.70	1.48
HIGH SCHOOL GRAD.	425	54.35	32.47	10.59	2.59
TWO YEARS COLLEGE	443	23.48	31.60	31.83	13.09
STUDENT ACHIEVEMENT LEVEL					
A - AVERAGE	139	33.81	24.46	23.02	18.71
B - AVERAGE	547	41.86	31.99	19.93	6.22
C - AVERAGE	368	48.91	34.24	13.86	2.99
D - AVERAGE	9	55.56	33.33	0.00	11.11

TABLE 10.

PERCENTAGE IN VARIOUS STRATA OF ELEVENTH-GRADE SAMPLE HAVING NO PLAN TO ATTEND COLLEGE AND GIVING ANY OF SEVERAL SELECTED REASONS FOR NOT ATTENDING

STRATUM	Sample Number Ans.	Reason For Not Attending College						
		Marks Too Low	Plans To Work	Being Married	Does Not Want to	Entering Military Service	Cont.Ed'n. Not at a College	Can't Afford
GRAND TOTAL	484	9.71	14.88	0.62	17.56	4.34	25.41	27.48
REGION								
NEWARK	199	8.04	13.57	1.00	17.08	5.53	19.60	35.18
CORE (incl. Newark)	286	7.69	14.68	0.70	18.88	4.54	22.03	31.48
RING	113	14.16	15.93	0.88	16.81	2.65	30.98	18.59
SUBURB	35	11.43	11.43	0.00	14.28	2.86	42.85	17.15
VOCATIONAL	50	10.00	16.00	0.00	14.00	8.00	20.00	32.00
PARENT SCHOOLING LEVEL								
NO SCHOOL	4	0.00	25.00	25.00	25.00	0.00	25.00	0.00
GRADE SCHOOL	93	10.75	17.20	1.07	13.98	1.07	18.28	37.65
SOME HIGH SCHOOL	145	6.90	11.72	0.69	22.76	6.90	24.14	26.89
HIGH SCHOOL GRAD.	194	9.28	18.04	0.00	16.49	4.64	28.86	22.69
TWO YEARS COLLEGE	45	20.00	4.44	0.00	13.33	2.22	26.67	33.34
STUDENT ACHIEVEMENT LEVEL								
A - AVERAGE	8	0.00	0.00	0.00	25.00	0.00	12.50	62.50
B - AVERAGE	129	0.00	19.38	0.00	20.15	0.77	23.25	36.45
C - AVERAGE	319	10.34	14.42	0.94	16.93	5.64	27.27	24.46
D - AVERAGE	25	56.00	4.00	0.00	12.00	8.00	16.00	4.00

TABLE 11.

PERCENTAGE IN VARIOUS STRATA OF ELEVENTH-GRADE SAMPLE WHICH WOULD CONSIDER SENDING CHILD TO A COUNTY COLLEGE AND MAXIMUM TOTAL COST THE FAMILY COULD AFFORD

		Maximum Amount Can Afford			
STRATUM	Sample Number Answering	Pct. at $1000 Per Year	Pct. at $500-1000 Per year	Pct. at $200-500 Per year	Pct. at $200 Per year
GRAND TOTAL	1543	14.45	28.51	37.59	19.45
REGION					
NEWARK	493	8.52	24.75	40.36	26.37
CORE (incl. Newark)	772	8.55	25.91	40.15	25.39
RING	477	19.08	31.45	37.10	12.37
SUBURB	221	28.05	36.20	27.15	8.60
VOCATIONAL	73	5.48	13.70	45.20	35.62
PARENT SCHOOLING LEVEL					
NO SCHOOL	4	0.00	0.00	75.00	25.00
GRADE SCHOOL	149	7.38	28.86	37.58	26.18
SOME HIGH SCHOOL	314	7.32	21.34	43.31	28.03
HIGH SCHOOL GRAD.	671	12.22	29.21	38.60	19.97
TWO YEARS COLLEGE	401	26.68	33.42	31.17	8.73
STUDENT ACHIEVEMENT LEVEL					
A - AVERAGE	116	17.24	29.31	39.66	13.79
B - AVERAGE	645	16.28	29.30	37.83	16.59
C - AVERAGE	741	12.41	27.53	37.25	22.81
D - AVERAGE	34	11.76	29.41	41.18	17.65

TABLE 12.

PERCENTAGE IN VARIOUS STRATA OF ELEVENTH-GRADE SAMPLE WHICH WOULD URGE CHILD TO ATTEND A COUNTY COLLEGE AND GIVING ANY OF SEVERAL SELECTED REASONS FOR URGING

	Reason For Urging That Child Attend County College						
STRATUM	Sample Number Answering	Can Live At Home	Cheaper	Wants 2-Year Program	Easier to Enter	Wants Transfer Program	Good Chance of Job
GRAND TOTAL	1594	25.28	17.56	12.86	16.69	24.09	3.52
REGION							
NEWARK	512	30.66	18.56	13.08	13.08	19.73	4.89
CORE (incl. Newark)	798	28.57	19.30	12.28	14.16	20.80	4.89
RING	495	22.83	16.56	9.09	18.79	30.50	2.23
SUBURB	221	19.00	14.93	13.57	22.18	29.86	0.46
VOCATIONAL	880	25.00	13.75	40.00	13.75	1.25	6.25
PARENT SCHOOLING LEVEL							
NO SCHOOLING	55	0.00	40.00	0.00	40.00	0.00	20.00
GRADE SCHOOL	165	34.55	16.36	15.15	13.33	13.33	7.28
SOME HIGH SCHOOL	334	33.24	17.66	13.77	13.17	16.77	5.39
HIGH SCHOOL GRAD.	689	25.40	17.85	14.08	15.38	24.09	3.20
TWO YEARS COLLEGE	396	14.90	16.92	9.34	22.73	35.35	0.76
STUDENT ACHIEVEMENT LEVEL							
A - AVERAGE	117	27.35	23.08	4.27	4.27	39.32	1.71
B - AVERAGE	657	25.72	20.39	11.57	9.13	31.21	1.98
C - AVERAGE	778	24.69	14.52	15.29	24.03	16.58	4.89
D - AVERAGE	34	23.53	14.70	11.76	35.30	5.88	8.83

TECHNOLOGICAL VS. NON-TECHNOLOGICAL PROGRAMS

Among the programs from which the parent was asked to make a choice, both for his child and for himself, and which can be regarded as technologies insofar as their requirement for extensive space, were the following:

- Nursing
- Social Welfare Work
- Electrical Technology
- Mechanical Technology
- Chemical Technology
- Medical Technology
- Pharmaceutical Technology
- Computer Technology
- Communications Technology
- Hotel Technology
- Drafting and Design

Indications were that 306 students, 18.41% of 1662 responses, would elect to enroll in one of these programs. The equivalent figure for adults was 322, or 44.85% of 718 responses. This result seems to indicate that there is a decidedly lesser interest in the technologies than in the predominantly academic programs. The Committee feels that this conclusion, if it were to be translated into a decision to plan a college primarily for the academic offering, could lead to grave error. It is convinced that lack of familiarity on the part of many parents with the content of technological programs, and failure to be aware of the exceptional employment opportunities open to graduates of such programs, have unduly weighted the findings in favor of the non-technologies. Moreover, the Committee believes that a principal service rendered by the Community College is the training of technicians and other technical workers at the sub-professional level in order to staff the numerous and wide variety of jobs of this type now unfilled. It is this service that is not being adequately provided for in existing institutions.

In light of the above, the recommendation has been made to plan for approximately half-and-half apportionment of the completed facilities to technological and non-technological offerings (Case II of the Cost Analysis in the Interim Report). In this connection, two additional points must be borne in mind. It will be inadvisable at the outset, while still operating in temporary facilities, to introduce those technologies requiring elaborate equipment and instrumentation and large amounts of space. Secondly, the introduction of specific technological programs should be keyed to prospective enrollment in them and to the need of County business and industry for the skills they teach. In some cases this may require a program to educate the public in perceiving this need and may favor a somewhat cautious approach to the development of suitable curricula.

PUBLIC AND PAROCHIAL SCHOOL OPINION

No overall difference of view as between parents of public school and parochial school students was observed relative to the establishment of the College. Percentage returns on the Questionnaire were actually higher from parochial schools than from public school (70% vs 61%). A spot check of three parochial schools showed the following results:

School	Number Mailed	Number Returned	Percentage of Parents in Favor of Establishing a County College	Percent Who Would Urge Child to Attend
Essex Catholic High	106	58	90%	84%
East Orange Catholic High	57	49	92%	80%
Seton Hall Preparatory	43	14	100%	100%

COMPOSITION OF ENROLLMENT AMONG NEW HIGH SCHOOL GRADUATES, ADULTS, RETURNED GI'S, AND OTHERS

The number of adults in relation to the total student body who would enroll for continuing education courses, is very difficult to determine. Judging solely by the numbers of students and adults designating course preferences in Questions 12 and 13 of the Questionnaire, it appears that 70% of the student body may be new graduates, 30% adults. It must be remembered, however, that only one parent completed the questionnaire, that the other parent's intention was not ascertained, and therefore, that the proportion of adults may even be higher. Most adults, of course, would attend Evening Division classes and would not take a full program of courses. There is little doubt that the 4000 full-time day student school proposed in the Interim Report would accommodate the number of adults seeking admission to the Evening Division.

The returning GI, like his predecessor of World War II and the Korean War, is certain to avail himself of the financial assistance offered to further his education. This presently amounts to 36 weeks of schooling at $100 per week, or $3600. The Veteran's Administration in New Jersey has predicted that 15000 GI's will seek such assistance in this state. Essex County, which has one-sixth of the State's population, can thus expect to have 2500 of these. Let us assume that 500 per year would enroll in some college over a period of five years and that one in five would select the County College. This would add 100 additional students per year to the student body, accounting for perhaps 5% of the enrollment in each class.

B. PROGRAMS PREFERRED

Nothing further need be said in regard to programs offered other than what is portrayed in Table 3, page 18. Programs not listed in Table 3 that were included in Question 12 of the Questionnaire elicited only minor interest, although there was no program that was not selected by some individuals.

C. COMMUTING PREFERENCE

This topic has also been treated under PRINCIPAL FINDINGS and RECOMMENDATIONS, page 7, and the results are summarized in Table 4. The main result is that all regions of the County are willing to accept a reasonable commuting distance to the College and that it is mandatory that public transportation be provided.

D. ATHLETIC PROGRAM PREFERENCE

Parent opinion in regard to the necessity for intramural or intercollegiate athletic programs and competition at a County College broke down as follows:

Number Answering	Percent Answering	Percent of Those Answering Favoring Intramural Programs	Percent of Those Answering Favoring Intercollegiate Athletics
322	16.89%	26.40%	73.60%

On the basis of this sample, it is not felt by the Committee that it is essential to institute an athletic program initially unless one is required by the State. However, adequate provision should be made for physical education and a reasonable program of team sports in the program of a completed college.

E. SUMMARY-PROBABLE NUMBER OF ADMISSIONS

Considering all of the various factors just discussed some attempt was made to incorporate the findings into a prediction of enrollment in one class of a completed facility. The prediction assumes that the eleventh-grade group canvassed is typical of whatever eleventh-grade group would provide the initial enrollments. The results are summarized in Table 13.

The method of preduction was to consider first the groups reporting either a plan or no plan to send their children to college, to further decompartment this number by the amount of money the family was planning to spend, or by reason, respectively, and then to conjecture what number in each category might be expected to end up on the campus of a County College.

Taking the "NO PLAN" group first (25.39% of total returns), it was decided to exclude from consideration the MARKS TOO LOW group (since entrance requirements would bar them), the BEING MARRIED group (in the belief that matrimony usually proves a stronger motive than education!), the ENTERING MILITARY group, and the group CONTINUING EDUCATION NOT AT A COLLEGE. About half of the minimum number in the County (as indicated by the Questionnaire) PLANNING TO WORK and half of the minimum number who DON'T WANT TO were assumed to become enrollees. In addition, four out of five of the approximately 500 minimum who reported they CAN'T AFFORD College were included. The total NO PLAN group thus contributed 600 students total to the single class enrollment. Since this number is based upon the County minimum responding to the Questionnaire and takes no account of those families who were sent a questionnaire and didn't respond, it must be regarded as a very conservative and solid figure.

The breakdown of the PLAN group (56.03% of total returns) is into Cost of anticipated annual expenditure for college. It was assumed here that none of those parents expecting to spend $3000 or more per year would be interested in having their children attend a low-cost community college. About one-half of the County minimum of the remaining two groups were included-800 from those planning to spend $1000 per year and 600 of those planning to spend $2000 per year. The total enrollees from the PLAN group were thus assumed to be 1400 in number.

TABLE 13.

PROBABLE ANNUAL NUMBER AND ORIGIN OF ADMISSIONS TO A COUNTY COLLEGE, 1967 - EARLY 1970's
(BASED ON SAMPLING OF HIGH SCHOOL CLASS OF 1967)

GROUP I (Sample % = 25.39)	Parents With No Plan Who Would Urge Child To Attend County College							
NO PLAN REASON	% of Total Having No Plan	Number Received	Number Urging	% Urging of Received	Cty./No Plan (CNP)	Maximum in County (% Urging x CNP)	Minimum in County (4 x Number Urging)	Probable Number of Admissions
MARKS TOO LOW	9.71	47	38	80.85	296	239	152	---
PLAN TO WORK	14.88	72	52	72.22	453	327	208	100
BEING MARRIED	0.62	3	3	100.00	19	19	12	---
DON'T WANT TO	17.56	85	57	67.06	535	359	228	100
ENTERING MILITARY	4.34	21	18	85.71	132	113	72	---
CONT. Ed. NOT IN C.	25.41	123	105	85.36	775	662	420	---
CANNOT AFFORD	27.48	133	125	93.98	839	788	500	400
TOTALS	100.00	484	398	82.23	3049	2507	1592	600

GROUP II (Sample % = 56.03)	Parents With Plan Who Would Consider Child's Attending County College							
ANTICIPATED COST	% of Total Having Plan	Number Received	Number Considering	% Considering of Received	Cty./Plan (CP)	Maximum in County (% Csdg. x CP)	Minimum in County (4 x Number Considering)	Probable Number of Admissions
$1000/Yr.	43.17	461	444	96.31	2902	2797	1776	800
$2000/Yr.	32.02	342	294	85.96	2152	1852	1176	600
$3000/Yr.	18.07	193	112	58.03	1215	706	448	---
$3500/Yr.	6.74	72	32	44.44	460	205	128	---
TOTALS	100.00	1068	882	82.58	6729	5560	3528	1400

(cont. on next page)

TABLE 13 (Cont'd)

GROUP III Sample % = 80.95 AMT. CAN AFFORD	Parents Who Can Afford And Would Urge Child To Attend County College							
	% of Total Can Afford	Number Received	Number Urging	% Urging of Number Received	Cty./Can Afford (CA)	Maximum in County (% Urging x CA)	Minimum in County (4 x Number Urging)	Probable No (Undecided) Admissions*
$1000/Yr.	14.45	223	207	92.82	1404	1303	828	80
$ 500/1000/Yr.	28.51	440	426	96.82	2772	2684	1704	160
$ 200/ 500/Yr.	37.59	580	565	97.41	3654	3559	2260	210
$ 200/Yr.	19.45	300	289	96.33	1891	1872	1156	---
TOTALS	100.00	1543	1487	96.37	9721	9368	5948	450

* Since Groups I and II, those who have made a college decision, account for 81.42% of the total sample, the undecided group must represent the remaining 18.58% of the eleventh-grade sample. It has been assumed that they are also 18.58% of Group III and that about one-half of them who can afford as much as $500 would be probable admissions

**GI Estimate:

15000 = No. New Jerseyans seeking educational benefits
2500 = No. in Essex County (1/6)
500 = No/Yr.-Essex Cty. (5 Yrs.)
100 = No. Admitted to County College (1/5)

Summary:

Group I Admissions	600
Group II Admissions	1400
Group III (Undecided only) Admissions	450
Total	2450
Less 18% not willing to travel over 2 miles (By Questionnaire)	2010
Less 4.5% not attending because of limited athletic programs (By Questionnaire)	1920
Plus 100 Returning GI's**	2020
Final One-Class Estimate (Daytime)	2020

Since the NO PLAN and PLAN groups comprised 81.42% (25.39% + 56.03%) of the total responding, it may be assumed that the remaining 18.56% were UNDECIDED. The Questionnaire did not explicitly identify this group. However, the number of them that represent enrollees in a County College must come from the WOULD CONSIDER group (identified by Question 6), and, specifically, from those who would be able to pay the cost of matriculation. On the assumption that costs would be in excess of $200, the group naming that figure as their limit was eliminated from consideration. As to all of those able to pay as much as $500, 20% (the proportion of UNDECIDED) were considered as applicants for admission of which approximately one half, or 10%, were assumed to have been admitted. As before, this 10% was taken as 10% of the County Minimum, computed as four times the number responding "WOULD CONSIDER" to the one-to-four random sample. The total of these is seen in Table 13 to be 450, which, when added to the PLAN and NO PLAN estimates, yields 2450 single-class enrollees.

This figure was then reduced in the light of answers to the other Questionnaire questions by 18% for those not likely to travel over 2 miles, and by another 4.5% for those not accepting the lack of an extensive athletic program. Finally, the 100 GI's expected to return (see page 35) were added, yielding an estimated grand total enrollment in a single class of the Day Division of 2020.

This figure should by no means be considered inflexible, but the Committee feels that it is a reasonably good indicator of the order of magnitude of enrollment which must be ultimately anticipated.

When compared with the enrollments projected in the Interim Report (see Figure 9, this report), it is clear that, to accommodate these 2020 or more students per class through 1967 and 1968, when the college would be operating in temporary facilities, is a virtual impossibility. Acceleration of the building program proposed in the Interim Report and assignment of large numbers of students to the Evening Division might make it possible to approach a 4000- enrollment figure by 1969, or 1970. Indications are, however, that for five years or more it will be impossible to provide County College facilities to accommodate all of those who will seek admission. This will require very careful specification of admission policies and extreme tact on the part of the administration, during the growth phase, in its dealings with the public.

F. ERRORS OF ESTIMATION

It was possible to compute two errors of estimation which the Committee believes are significant. The first of these is the possible error, due to the random nature of the survey, in the estimate of the number of people favoring establishment of the college, whether or not their own child would attend (Question 14). Since the answer was "yes" or "no", the total number of responses thus comprising what the statistician calls a "two-cell universe", the error of estimation can be computed by a well-known formula (see Appendix E). A similar computation can be made for the estimate of the number of those parents who would urge their child to attend a County College and those who, by their silence, indicate they would not (Question 7). The results are given below.

Favoring Establishment of A County College (County Minimum)	Error of Estimate	Percent Favoring Establishment of A County College (County Minimum)	Error of Estimate
7020	± 112	95%	± 1.5%
Urging Child To Attend County College (County Minimum)	**Error of Estimate**	**Percent Urging Child Attend County College (County Minimum)**	**Error of Estimate**
6376	± 192	84%	± 2.5%

The errors quoted are three standard deviations, in the language of the statistician. They take into account the size of the sample and can be regarded as the utmost margin of error.

IV THE FAVORED LOCATION

As discussed in PRINCIPAL FINDINGS, no data turned up by the Questionnaire inclined the Committee toward any reconsideration of the Favored Location designated in the Interim Report,- namely, the vicinity of the intersection of Route No. 280, the East-West Freeway, and Prospect Avenue, in the municipality of West Orange. The results of the Commuting Preference analysis (Table 4) demonstrate the desire of a majority of parents for a site centrally located in the County.

V. RECOMMENDED ACTIONS:

The original Freeholders charge to this Committee asked that it determine "the need for additional legislation with recommendations for such, if necessary." The Committee has five suggestions to make for State or County action, at least one of which involves the support of legislation.

1. STATE SHARE OF OPERATING COSTS

It is urged that the County support legislation raising the limitation of $200 on the State's share of annual operating costs per student. Support of the Tanzman bill now before the senate, raising this limitation to $600 is recommended.

2. TRANSFER OF STUDENTS FROM COUNTY COLLEGES TO STATE-CONTROLLED 4-YEAR INSTITUTIONS

It is recommended that the State be urged to set up routine procedures for the transfer of County College graduates who successfully complete a college-parallel program, to State-controlled institutions of higher (15th and 16th year) education.

3. INDUCEMENTS FOR BUSINESS and INDUSTRY SUPPORT

County businesses and industry should be encouraged to provide support to a County College, once established. This would include supply of educational equipment or facilities, produced and manufactured by local companies, to the County College for instructional purposes, either as gifts or in return for some consideration on the part of the County or the College.

4. PRIVATE FOUNDATION for COUNTY COLLEGE GIFTS

In Middlesex and Ocean Counties private foundations have been set up to receive gifts to the College from private and public donors. The prime reason for these foundations is that a donor will often attach some condition to his gift and in general, such conditions cannot by law be accepted by the County because of its political status. The County should encourage the formation and functioning of such a foundation, free of taxes, for the purpose stated.

5. COUNTY SCHOLARSHIPS

Consideration should be given to setting up County Scholarships for deserving students whose parents cannot afford even the low cost of a County College education.

APPENDIX A

THE QUESTIONNAIRE TO PARENTS

FREEHOLDERS COST FACT-FINDING COMMITTEE
FOR THE
ESSEX COUNTY COMMUNITY COLLEGE

C. MALCOLM DAVIS
CHAIRMAN
MRS. REYNOLD E. BURCH
FRED LANDOLPHI
HARRY LATIMER
ALFRED C. LINKLETTER

ROBERT H. SPOHN
CONSULTANT

ESSEX COUNTY PLANNING DEPT.
520 BELLEVILLE AVENUE, BLDG. #3
BELLEVILLE, N. J. 07109
Phone 751-4350

A Message

Dear Parent,

Your Essex County Board of Freeholders through its Cost Fact-Finding Committee, is collecting the information it needs for guidance in establishing the kind of Community College which will best serve the needs of Essex County. Several studies already have been made recommending the establishment of such a school. The present committee is now seeking help from you, the parents of potential Community College students, in order to obtain an estimate of enrollments when the college opens. These estimates will aid the Freeholders in determining how large a college is needed, where in Essex County it should be located, what courses it should offer, what it will cost to construct and operate, how much tuition must be charged, etc.

Each parent receiving this questionnaire, therefore, is asked to read carefully the next page describing briefly the distinguishing features of a community college and, then, to answer thoughtfully the questions which follow.

It is not necessary to sign your name to the questionnaire.

Thank you,
C. Malcolm Davis, Chairman
Mrs. Reynold E. Burch
Fred Landolphi
Harry Latimer
Alfred C. Linkletter

Robert H. Spohn, Consultant

What Is A Community College Like?

The Community College is a relatively new type of two-year college that is just now making its appearance in many sections of the country. It stands between the high school and the university. It places emphasis on education throughout life and reflects changing patterns in the world's way of doing things which have created new needs for higher education.

Essex County Community College when established will be one of many soon to open in New Jersey. It will be a college to serve Essex County youth and adults and Essex County labor, business, and industry. It will perform this service by enrolling Essex County high school graduates in preference to those of any other area; by guiding and counseling them through two years of higher education; and by preparing them for career positions or for transfer into higher institutions where they can acquire even more advanced education. At the same time, it will offer adults the opportunity to improve their education at their own pace and perhaps qualify themselves for new and better jobs.

The college will be able to provide higher education at minimum cost to you for two reasons:

(1) Most of the operating cost will be borne by the State and County.

(2) The student will live at home and commute to school, thus saving the cost of meals and dormitory incurred at most other colleges. To facilitate commuting, an effort will be made to locate the college within easy access of main highways and public transportation.

Programs offered will be of two types: terminal and transfer.

Terminal Programs will give the graduate an Associate's degree after two years of satisfactory work. He will be able to specialize in such fields as Electrical Technology, Computer Programming, Secretarial Science, Accounting, Medical Laboratory Technology, Marketing and Advertising, etc. The industries and businesses of Essex County will cooperate in planning these programs and will be anxious to hire competent graduates . . .

Transfer Programs will qualify those students who have satisfactorily completed the two-year course for entrance into the third year of a four-year institution, in most cases without entrance examination. They will include such fields as Pre-Engineering, Liberal Arts, Business, Pure and Applied Sciences.

A wide variety of special programs in the broad area of adult education will also be offered.

The Community College is a true college. Students will be required to take a balanced program in art appreciation, science, and social studies in addition to the courses in their specialty, and high standards will be maintained. Faculty and staff will be the best that can be assembled. A full program of student activities will be fostered.

A PTA worker or other volunteer helper will assist you in completing this questionnaire, if you wish. To get help, call

Mr.
Mrs. .... at ....

Thank you for giving us your cooperation in carrying out this survey.

Region/School Code (Please disregard. For Committee use only.) (______)

Essex County Community College Questionnaire For Parents

Directions: Before you start to answer the questions below, be sure you have read the description on the opposite page of the proposed Essex County Community College. When you are ready to proceed, read each question carefully, decide on your answer, then **place the number** representing your answer in the answer space provided in the right column. **All answers will be numbers.** If you feel unable to answer a given question, or if a given question does not apply to you, simply leave the answer space for it blank. It will be helpful to refer to the description of the Community College on the opposite page from time to time while deciding on your answer.

1. Is your eleventh-grader a boy or a girl?
   (1) Boy (2) Girl

   1. (______)

2. About what is your child's average mark or performance in all of his* courses or work since he* began high school?
   (1) A or excellent (2) B or good (3) C or average
   (4) D or below average

   2. (______)

3. What schooling have you, the parent or guardian who is completing this questionnaire, had? (Highest level)
   (1) No schooling
   (2) Grade school education
   (3) Some high school work
   (4) Graduate of a high school
   (5) Two years or more of college

   3. (______)

4. I do not plan to send my child to college because (Do not answer if you do plan to send him.)
   (1) His marks are too low
   (2) He plans to work
   (3) He is being married
   (4) He doesn't want to go
   (5) He is entering military service
   (6) He is continuing his education or training, but not at a college
   (7) We cannot afford to send him

   4. (______)

5. I plan to send my child to a 4-year college costing not more than (Leave blank if you have no such plan.)
   (1) $1000 per year
   (2) $2000 per year
   (3) $3000 per year
   (4) $3500 per year

   5. (______)

6. I would consider sending my child to the Essex County Community College if the total cost to our family were (Supply the number corresponding to the highest amount you would be able to pay.)
   (1) About $1000 per year
   (2) Between $500 and $1000 per year
   (3) Between $200 and $500 per year
   (4) About $200 per year

   6. (______)

---

*Throughout the questionnaire, "his" means either his or her; "he" means either he or she; "him" means either him or her.

7-8. I would urge my child to attend the Essex County Community College because (If possible, select both a main reason and a next most important reason.)

(1) I like the idea of having him live at home while at school.
(2) It would be cheaper than to send him to another school.
(3) He would be interested in taking one of the two-year career-type programs.
(4) As an Essex County resident, or being of average ability, he would be more likely to have his application accepted than at another school.
(5) He could transfer to another school for his last two years, having saved money the first two years by attending the Community College.
(6) He would have a good chance of getting a job, especially in Essex County.

7. (______)
Main reason

8. (______)
Next reason

9. If my child attended Essex County Community College, he probably would commute to it by

(1) Automobile (his own or in a car pool)
(2) Public transportation (bus or other)

9. (______)

10. The greatest commuting distance I would regard as reasonable would be

(1) A few blocks
(2) 2 miles
(3) 5 miles
(4) 10 miles

10. (______)

11. I would send my child to Essex County Community College only if the college had (If not important to you, do not answer.)

(1) An intramural athletic program (within the school only).
(2) A full program of intramural and intercollegiate athletic competition (contests with other schools).

11. (______)

12. If my child were to attend Essex County Community College, the **one** program he would be most likely to enroll in would be (Don't hesitate to discuss, before answering, with your son or daughter.)

Transfer Type (Requiring an additional two years at another college for the Bachelor's degree.)

(1) Liberal Arts (languages, history, mathematics, etc.)
(2) Business
(3) Pre-Engineering
(4) Natural Sciences (biology, pre-medical, etc.)
(5) Social Sciences (sociology, economics)
(6) Chemistry
(7) Physics

Career Type (Terminating with an Associate degree in two years)

(10) Liberal Arts
(11) Accounting
(12) Marketing and Advertising
(13) Secretarial Science
(14) Nursing
(15) Social Welfare Work
(16) Electrical Technology
(17) Mechanical Technology
(18) Chemical Technology
(19) Medical Technology
(20) Pharmaceutical Technology
(21) Computer Technology
(22) Communications Technology
(23) Hotel Technology
(24) Drafting and Design
(25) Banking and Insurance

12. (______)

13. I, myself, would consider enrolling in the Adult Education or Evening Division at the Community College to take work in (Choose a number from those given in Question 12, above.)

13. (______)

14. Do you favor the establishment of an Essex County Community College, whether or not your son or daughter would attend it?

(1) Yes (2) No

14. (______)

APPENDIX B

QUANTITIES COMPUTED FROM QUESTIONNAIRE RETURNS

Question	Quantity Computed
Region School Code	Grand Total Returned Total And % Returned Each Region Public Parochial
1.	Grand Total Answering, Question 1. Total and % Boys, Girls
2.	Grand Total Answering, Question 2. Total and % Each Region, Each Grade
3.	Grand Total Answering, Question 3. Total and % Each Region, Each Parent Schooling Level
4.	Grand Total Answering, Question 4. Total and % Each Reason Total and % Each Region, Each Reason Total and % Each Parent Schooling Level (PSL), Each Reason Total and % Each Student Achievement Level (SAL), Each Reason
5.	Grand Total Answering, Question 5. Total and % Each Amount Total and % Each Region, Each Amount Total and % Each PSL, Each Amount Total and % Each SAL, Each Amount
6.	Grand Total Answering, Question 6. Total and % Each Amount Total and % Each Region, Each Amount Total and % Each PSL, Each Amount Total and % Each SAL, Each Amount Total and % Also Answering 4, Each Reason, Each Amount Total and % Also Answering 5, Each Amount (5), Each Amount (6)

Question	Quantity Computed
7-8	Grand Total Answering, Question 7.
	Grand Total Answering, Question 8.
	Total and % Answering 7, Each Reason
	Total and % Answering 7, Each Reason, Each Region
	Total and % Answering 7, Each Reason, Each PSL
	Total and % Answering 7, Each Reason, Each SAL
	Total and % Answering 7, Also Answering 4, Each Reason
	Total and % Answering 7, Also Answering 5, Each Amount
	Total and % Answering 7, Also Answering 2, Each Sex
	(Repeat for Question 8)
9.	Grand Total Answering, Question 9.
	Total and % Automobile
	Total and % Automobile, Each Region
	Total and % Public
	Total and % Public, Each Region
	Grand Total Answering, Question 9 and 7
	Total and % Answering 9 and 7, Each Region
10.	Grand Total Answering, Question 10.
	Total and % Each Distance
	Total and % Each Region, PSL, and SAL, And Each Distance
	Total and % Each School, Each Distance
11.	Grand Total Answering, Question 11.
	Total and %, Each Type Program
12.	Grand Total Answering, Question 12.
	Total and %, Each Program
13.	Grand Total Answering, Question 13.
	Total and %, Each Program
14.	Grand Total Answering, Question 14.
	Total and % Yes, No

Note: All totals computed were extrapolated upward by use of the computed percentages to obtain the equivalent county population for each item.

APPENDIX C.

ESTIMATION OF ENROLLMENT BY FORWARD INTERPOLATION

The problem is, given a table of class enrollment for the current and preceding years, to obtain a good estimate of enrollments in future years. Let a segment of the table be represented as below, where Y represents a given year, G a given grade, and ${}_{G}E_{Y}$ represents the enrollment in grade G in year Y.

	Y - 4	Y - 3	Y - 2	Y - 1	Y
G - 4					
G - 3		${}_{G-3}E_{Y-3}$	${}_{G-3}E_{Y-2}$	${}_{G-3}E_{Y-1}$	
G - 2		${}_{G-2}E_{Y-3}$	${}_{G-2}E_{Y-2}$	${}_{G-2}E_{Y-1}$	
G - 1		${}_{G-1}E_{Y-3}$	${}_{G-1}E_{Y-2}$	${}_{G-1}E_{Y-1}$	
G		${}_{G}E_{Y-3}$	${}_{G}E_{Y-2}$	${}_{G}E_{Y-1}$	${}_{G}E_{Y}$

Suppose that the enrollments for years Y-1, Y-2, Y-3, etc. are known for grades G, G-1, G-2, G-3, etc., and that enrollment in grade G in Year Y is to be estimated. A suitable formula that may be employed is

$${}_{G}E_{Y} = \tfrac{1}{2}\left({}_{G}E_{Y}^{(1)} + {}_{G}E_{Y}^{(2)}\right)$$

where

$${}_{G}E_{Y}^{(1)} = \frac{{}_{G}E_{Y-1} \times {}_{G-1}E_{Y-1}}{{}_{G-1}E_{Y-2}}$$

and

$${}_{G}E_{Y}^{(2)} = \frac{{}_{G}E_{Y-1} \times {}_{G-2}E_{Y-2}}{{}_{G-2}E_{Y-3}}$$

These formulas obtain ${}_{G}E_{Y}$ as the simple average of two estimates: ${}_{G}E_{Y}^{(1)}$ and ${}_{G}E_{Y}^{(2)}$ The first, ${}_{G}E_{Y}^{(1)}$, considers the current enrollment ${}_{G}E_{Y}$ to be proportionate, in the current and first year preceding, to that of the class one year ahead. The second estimate, ${}_{G}E_{Y}^{(2)}$, considers the current enrollment ${}_{G}E_{Y}$ to be proportionate, in the current and second year preceding, to that of the class one year ahead. Averaging the two estimates tends to smooth out the effect of an unusual enrollment in any given year. Repeated application of the formulas permits forward interpolation to any year succeeding those for which data is available.

APPENDIX D.

THE PEARSON PRODUCT-MOMENT CORRELATION COEFFICIENT

The Pearson Product-Moment Correlation Coefficient r is a widely used statistic which measures association between two variables on an interval scale. Specifically, this measure is used to determine the degree of linear relationship between two variables.

Example:

From TABLE 8. We will find the correlation coefficient by Parent Schooling Level for Percent No Plan (Y) with Percent Returned (X).

Parent Schooling Level	Percent Returned (X)	Percent Reporting No Plan (Y)
No Schooling	0.26	0.83
Grade School	9.79	19.33
Some High School	20.01	30.15
High School Graduate	40.71	40.33
Two Years College	29.23	9.36

There are a number of different computational formulas which are used to obtain this statistic. One that is well-suited for computation on a desk calculator is

$$r_{XY} = \frac{N\Sigma XY - (\Sigma X)\ (\Sigma Y)}{\sqrt{(N\,\Sigma X^2 - (\Sigma X)^2)\ (N\,\Sigma Y^2 - (\Sigma Y)^2)}}$$

N = Number of pairs
The symbol Σ = "the sum of"
ΣXY = the sum of the products of all X's by their corresponding Y's, etc.

The following quantities are known, or can be computed and substituted in the formula above:

$N = 5$
$\Sigma X = 100$
$(\Sigma X)^2 = 10^4$
$\Sigma X^2 = 3007.1947$
$\Sigma XY = 2707.7818$

$\Sigma Y = 100$
$(\Sigma Y)^2 = 10^4$
$\Sigma Y^2 = 2997.4788$

Computation with the formula leads to the result

$$r_{XY} = .7064$$
$$= .71$$

which is the value recorded in Figure 5 (q.v.) for the correlation sought.

APPENDIX E.

ESTIMATION OF ERROR

The estimates of error in the sample number answering, and sample percent answering, of parents favoring the establishment of a college and those who would urge their child to attend a county college are obtained by the following formulas*:

$\mathrm{Var}\ r = npq$ = variance in sample number

$\mathrm{Var}\ \frac{r}{n} = \frac{pq}{n}$ = variance in sample percent

where Var = variance = (Standard deviation)^2

r = sample number (in favor)
(would urge)

n = total number received

p = percent (in favor)
(would urge)

q = percent (not in favor)
(would not urge)

These formulas assume that the sample taken by questionnaire was a member of a normal distribution about a mean which would be obtained by repeated sampling. They are applicable to a 0, 1 universe, with replacement, which is the case in Question 7 (would urge, no reply) and Question 14 (in favor of college, not in favor). Plus or minus one standard deviation $= \pm \sqrt{\mathrm{Var}}$ would represent the region accounting for 39%, approximately, of all cases; and three standard deviations essentially all possibilities of error.

---

* W. E. Deming, *Some Theory of Sampling*, Wiley and Sons, Inc., 1950, p. 111.

APPENDIX F.

ACTIVITIES OF THE COMMITTEE

Conferences and Visits

February 28, 1966	Meeting of the Committee, Fidelity Union Trust Company, Newark, New Jersey
March 7, 1966	Meeting of the Committee, Fidelity Union Trust Company, Newark, New Jersey
March 14.11966	Conference with Mr. Thomas Barrett and Mr. Robert Donnelly at the Hall of Records, Newark, N. J.
March 15,,1966	Conference at the Hall of Records with Mr. T. Barrett, Mr. R. Donnelly, and Mr. Fulvio Campagna representing Premier Printers, Kearny, New Jersey
April 11, 1966	Conference with Dr. Frank B. Stover, Superintendent of Schools, Bloomfield, New Jersey.
April 26, 1966	Meeting of the Committee, Fidelity Union Trust Company, Newark, New Jersey

Correspondence

Additional correspondence with the following individuals and agencies is in the files of the Committee.

Mr. Harry Githens, Assistant Director, Bureau of Community Colleges, Pennsylvania Department of Public Instruction, Harrisburg, Pennsylvania.

Mr. Jesse R. Barnet, formerly Program Associate, American Association of Junior Colleges, Washington, D. C.

K. G. Skaggs, Specialist in Occupational Curriculums, American Association of Junior Colleges, Washington, D. C.

Kenneth E. Gardner, Associate Management Analyst, State University of New York, Albany, New York.

David L. Bichler, Hackensack, New Jersey.

Mr. Henry J. T. Doren, Orange, New Jersey.

Dr. S. V. Martorana, Executive Dean, State University of New York, Albany, New York.

Robert J. Novotny, Maplewood, New Jersey.

R. G. Lamborn, Bloomfield, New Jersey.

Anthony D. Murro, Marsh & McLennan of New Jersey, Inc., Westfield, New Jersey.

Dr. Frank P. Merlo, Montclair State College, Montclair, New Jersey.

APPENDIX G.

FINANCIAL STATEMENT

Total Amount Budgeted:	$ 10080.00
Expended or Committed to 5/1/66:	9953.55
Balance:	$ 126.45

Note: Above figures do not include furniture and typewriter which were supplied by County but which were not a part of planned expenditures.